



FIRST PRESBYTERIAN CHURCH

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

PERMIT PACKAGES

MARCH 14, 2014

K E R N S G R O U P
A R C H I T E C T S

GRAPHIC STANDARDS

	CONCRETE MASONRY UNITS (CMU)		EXTERIOR ELEVATION REFERENCE
	CMU VENEER BRICK VENEER		BUILDING SECTION REFERENCE
	CONCRETE		WALL SECTION REFERENCE
	GRAVEL		INTERIOR ELEVATION REFERENCE
	STEEL		ELEVATION POINT, OR START POINT
	WOOD (FINISH)		ROOM NAME AND NUMBER
	WOOD (ROUGH)		EXISTING TO REMAIN ROOM NAME AND NUMBER
	PLYWOOD		DOOR NUMBER
	BATT INSULATION		EXISTING TO REMAIN DOOR
	RIGID INSULATION		PARTITION TYPE
	EARTH		FLOOR/WALL FINISH
	GYPSUM WALLBOARD (GWB)		REVISION
			WINDOW/LOUVER TYPE

GENERAL NOTES

1. REPORT DISCREPANCIES AND QUESTIONS TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
2. BEFORE BEGINNING WORK AT THE SITE, WHERE POSSIBLE AND THROUGHOUT THE COURSE OF THE WORK, INSPECT AND VERIFY THE LOCATION AND CONDITION OF EVERY ITEM AFFECTED BY THE WORK UNDER THIS CONTRACT AND REPORT DISCREPANCIES TO THE ARCHITECT BEFORE DOING WORK RELATED TO THAT BEING INSPECTED.
3. THE ARCHITECTURAL DRAWINGS SHOW PRINCIPAL AREAS WHERE WORK MUST BE ACCOMPLISHED UNDER THIS CONTRACT. INCIDENTAL WORK MAY ALSO BE NECESSARY IN AREAS NOT SHOWN ON THE DRAWINGS DUE TO CHANGES AFFECTING EXISTING SYSTEMS. SUCH INCIDENTAL WORK IS ALSO PART OF THIS CONTRACT. INSPECT THOSE AREAS AND DETERMINE WORK NEEDED AND DO THAT WORK IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS, AT NO ADDITIONAL COST OR TIME.
4. DRAWINGS SHOW EXTENT OF THE PROPOSED ARCHITECTURAL WORK AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS ON THE EXISTING STRUCTURE. CONTRACTOR SHOULD FIELD VERIFY ALL CONDITIONS AND REPORT ANY INCONSISTENCY TO THE ARCHITECT.
5. PROTECT EXISTING WORK, AND EXISTING CONDITIONS TO REMAIN FROM DAMAGE.
6. NOTES ARE NOT INTENDED TO REPRESENT EVERY CONDITION WHICH THE CONTRACTOR MAY ENCOUNTER ON THE EXISTING STRUCTURE.
7. DETERMINE LOCATION OF PARTITIONS NOT DIMENSIONED BY THEIR RELATION TO COLUMN FACE OR CENTER, WINDOW JAMB OR MULLION, OR OTHER SIMILAR FIXED ITEM.
8. DIMENSIONS TO EXISTING SURFACES ARE GENERALLY NOTED TO THE EXISTING FINISHED FACE. DIMENSIONS TO NEW MASONRY ARE TO ROUGH FACE OF UNITS. MASONRY DIMENSIONS ARE NOMINAL. DIMENSIONS TO NEW CHANNEL STUD OR FURRED CHANNEL PARTITIONS ARE TO FACE OF FINISH UNLESS OTHERWISE NOTED. CHANNEL STUD PARTITIONS DIMENSIONS ARE NOMINAL.
9. UNLESS NOTED OTHERWISE, ALL DOORS ARE LOCATED 6" FROM HINGE SIDE OF FRAME TO FINISHED FACE OF ADJACENT PARTITION.
10. EXCEPT IN SPACES WHERE NO WORK UNDER THIS CONTRACT IS REQUIRED, ENCLOSE EXISTING AND NEW CONDUIT, DUCTS, PIPES AND SIMILAR ITEMS IN FURRING WHERE SUCH ITEMS PASS THROUGH FINISHED SPACES WHETHER OR NOT FURRING IS INDICATED.
11. FURR TO CONCEAL HORIZ. DUCTS PASSING THROUGH EXISTING OR NEW SPACES WHERE IT IS NOT POSSIBLE TO INSTALL THE DUCTS ABOVE THE CEILING. USE GYPSUM BOARD FOR SUCH FURRING.
12. PROVIDE ACCESS PANELS IN GWB CEILINGS AND BULKHEADS IN LOCATIONS AND SIZES AS REQ'D BY ANY TRADES FOR SERVICES, MAINTENANCE OR CODE. COORDINATE LOCATIONS OF PANELS WITH ARCHITECT PRIOR TO INSTALLATION.
13. REPAIR DAMAGE FROM DEMOLITION IF THE FINISHED SURFACE HAS BEEN AFFECTED AND IS VISIBLE TO VIEW. FINISH TO MATCH EXISTING.

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SUITE 200 FALLS CHURCH,
VIRGINIA 22046-4713
TEL 703.528.1150 FAX 703.528.1151

FIRST PRESBYTERIAN CHURCH
40 CHURCH STREET
ASHEVILLE, NC 28801
828.253.1431 FAX 828.253.3192

KLOESEL ENGINEERING
8 MAGNOLIA AVENUE, SUITE 100
ASHEVILLE, NORTH CAROLINA 28801
TEL 828.250.0780 CEL 828.231.4910

TILDEN WHITE & ASSOC.
351 MERRIMON AVENUE,
ASHEVILLE, NORTH CAROLINA 28801
TEL 828.255.4327

MILLER, BEAM & PAGANELLI, INC.
12040 SOUTH LAKES DRIVE, SUITE 104
RESTON, VIRGINIA 20191 TEL
703.506.0005 FAX 703.506.0009

HARTRANFT LIGHTING DESIGN
214 WEST TREMONT AVENUE
SUITE 500, CHARLOTTE, NC 28203
TEL 240. 731. 1058

ABBREVIATIONS

AB	ANCHOR BOLT	D	DEEP	HR	HANDRAIL	P.C.	PRECAST				
ABV	ABOVE	DBL	DOUBLE	HT	HEIGHT	PL	PLATE	T & G	TONGUE & GROVE		
ACT	ACUSTICAL CEILING TILE	DISP	DISPENSER	HTR	HEATER	PLAS	PLASTER	TB	TACKBOARD		
ADDL	ADDITIONAL	DS	DOWNSPOUT	HV	HIGH VOLTAGE	P.LAM	PLASTIC LAMINATE	TCS	TERNE COATED STAINLESS STL		
AD	AREA DRAIN	DTL	DETAIL			PLYWD	PLYWOOD	TEMP	TEMPERED		
ADJT	ADJACENT	DW	DISHWASHER			PM	PROJECT MANAGER/OFFICER	TME	TO MATCH EXISTING		
A.F.F.	ABOVE FLOOR FINISH	DWG	DRAWING	INFO	INFORMATION	PNL	PANEL	T.O.	TOP OF		
ALT	ALTERNATE			INSUL	INSULATION	POL	POLISHED	T.O.C.	TOP OF CONCRETE		
ALUM	ALUMINUM			INTER	INTERMEDIATE	PR.L	PROPERTY LINE	T.O.M.	TOP OF MASONRY		
AP	ACCESS PANEL	EA	EACH	INT	INTERIOR	P.T.	PRESERVATIVE TREATED	T.O.S.	TOP OF STEEL		
APP	APPROVED	EJ	EXPANSION JOINT			PTD	PAINTED	T.O.W.	TOP OF WALL		
APPROX	APPROXIMATELY	EL	ELEVATION	JB	JUNCTION BOXES	PVC	POLYVINYL CHLORIDE	TYP	TYPICAL		
@	AT	EL.EV	ELEVATOR OR ELEVATION	JST	JOIST						
ARCH	ARCHITECT	EQ	EQUAL	JT	JOINT			U.CAB.	UPPER CABINET		
A/V	AUDIO/VISUAL	ETR	EXISTING TO REMAIN	L	LONG	R	RADIUS	U.O.N.	UNLESS OTHERWISE NOTED		
		EWC	ELECTRIC WATER COOLER	LAM	LAMINATE	R & S	ROD & SHELF				
B & B	BOARD AND BATTEN	EXIST/EXG	EXISTING	LAV	LAVATORY	RBR	RUBBER				
BD	BOARD	EXP	EXPANDED	LT	LIGHT	R.D.	ROOF DRAIN	V.B.	VAPOR BARRIER		
BM	BEAM	EXT	EXTERIOR			REF	REFERENCE	VCT	VINYL COMPOSITION TILE		
B.O.	BOTTOM OF					REFL	REFLECTED	VERT	VERTICAL		
BOT	BOTTOM					REFG	REFRIGERATOR	V.I.F.	VERIFY IN FIELD		
B.R.	BACKER ROD	F.A.	FIRE ALARM			REQD	REQUIRED				
BRG	BEARING	F.O.	FACE OF	MACH	MACHINE	REINF	REINFORCED	W	WIDE		
BSBD	BASEBOARD	F.PCP	FIRE/CEMENT PANEL	MAS	MASONRY	RESIL	RESILIENT	W/	WITH		
BTW	BETWEEN	FIN	FINISHED	MAT	MATERIAL	RFG	ROOFING	WD	WOOD		
BU	BACK UP	FEC	FIRE EXTINGUISHER CABINET	MAX	MAXIMUM	RM	ROOM	WDW	WINDOW		
B.U.R.	BUILT UP ROOFING	FIXT	FIXTURE	MECH	MECHANICAL	R.O.	ROUGH OPENING	WP	WATERPROOF		
		FLASH	FLASHING	MEMB	MEMBRANE	RR	REST ROOM	WR	WATER RESISTANT		
CAB	CABINET	FLR	FLOOR	MFR	MANUFACTURER	RTU	ROOF TOP UNIT	WWF	WEIGHT		
CB	CHALKBOARD	FD	FLOOR DRAIN	MIN	MINIMUM	SAFB	SOUND ATTENUATING		WELDED WIRE FABRIC		
CH	CHANNEL	FTG	FOOTING	M.O.	MASONRY OPENING		FIRE BLANKET				
CI	CAST IRON	FR	FIRE RETARDANT	M.R.	MOISTURE RESISTANT	SCWD	SOLID CORE WOOD				
CJ	CONTROL JOINT	FOUND	FOUNDATION	MTD	MOUNTED	SCHED	SCHEDULE				
CL	CLOSET	FURR	FURRING	MTL	METAL	SHT	SHEET				
CLG	CEILING					SHT	SHEET				
CMU	CONCRETE MASONRY UNIT	GA	GUAGE			SIM	SIMILAR				
CO	CASED OPENING	GC	GENERAL CONTRACTOR			SLR	SEALER				
COL	COLUMN	GF	GROUND FACE	NAT	NATURAL	SOG	SLAB ON GRADE				
COMP	COMPRESSED	GL	GLASS	N.I.C.	NOT IN CONTRACT	SM	SEAM				
CONC	CONCRETE	GWB	GYPSUM WALLBOARD	N.T.S.	NOT TO SCALE	SPEC	SPECIFICATION				
COND	CONDITION					SS	STAINLESS STEEL				
CONN	CONNECTION	H	HIGH			STD	STANDARD				
CONT	CONTINUOUS	HCWD	HOLLOW CORE WOOD	O/	OVER	STGR	STRINGER				
COORD	COORDINATE	HCP	HANDICAPPED	OC	ON CENTER	STL	STEEL				
CORRUG	CORRUGATED	HD	HEAD	O.H.	OPPOSITE HAND	STN	STAIN				
CPT	CARPET	HDWR	HARDWARE	OPNG	OPENING	STRUCT	STRUCTURAL				
CS	CAST STONE	HM	HOLLOW METAL			SUSP	SUSPENDED				
CT	CERAMIC TILE	HORIZ	HORIZONTAL	PART	PARTITION	SW	SWITCH				



40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

100% DESIGN DEVELOPMENT SET	13 DEC 2013
FOR BID / PERMIT	6 MAR 2014
PERMIT PACKAGES	14 MAR 2014

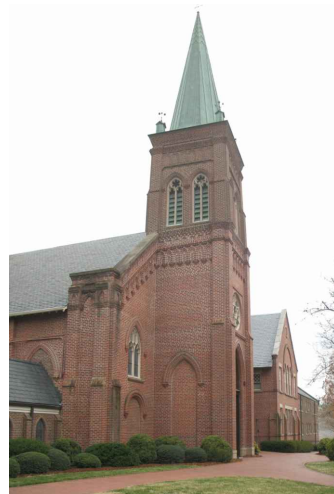
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PROJECT DATA

DRAWING NO.

T.2

KGA PROJECT NO. 1103.03



FIRST PRESBYTERIAN CHURCH SANCTUARY RENOVATION

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

100% DESIGN DEVELOPMENT SET 13 DEC 2013
FOR BID / PERMIT 6 MAR 2014
PERMIT PACKAGES 14 MAR 2014

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BUILDING CODE ANALYSIS

DRAWING NO.

T.3

KGA PROJECT NO. 1103.03

2012 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES) (Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: FIRST PRESBYTERIAN CHURCH CHANCEL RENOVATION
Address: 40 Church Street, Asheville, NC Zip Code 28801
Proposed Use: Unchanged (Religious Worship)
Owner/Authorized Agent: Paul Vliek Phone # (828) 277-6111 E-Mail pvliek@earthlink.net
Owned By: ☐ City/County ☒ Private ☐ State
Code Enforcement Jurisdiction: ☒ City Asheville, NC ☐ County ☐ State

LEAD DESIGN PROFESSIONAL: KERNS GROUP ARCHITECTS, P.C.
DESIGNER FIRM NAME LICENSE # TELEPHONE # E-MAIL
Architectural KERNS GROUP ARCHITECTS, PC Brian Erickie (703)592-9138 bfrickie@kernsgroup.com
Civil N/A
Electrical Tilden White & Assoc. PLLC Tilden White 028953 (828)255-4327 tw@tildenwhite.com
Fire Alarm Tilden White & Assoc. PLLC Tilden White 028953 (828)255-4327 tw@tildenwhite.com
Plumbing Tilden White & Assoc. PLLC Tilden White 028953 (828)255-4327 tw@tildenwhite.com
Mechanical Tilden White & Assoc. PLLC Tilden White 028953 (828)255-4327 tw@tildenwhite.com
Sprinkler-Standpipe E. J. Kloesel 014320 (828)255-0780 woody@kloesel-engineering.com
Structural Kloesel Engineering E. J. Kloesel 014320 (828)255-0780 woody@kloesel-engineering.com
Retaining Walls >5' High
Other

2012 EDITION OF NC CODE FOR: ☐ New Construction ☐ Addition ☐ Upfit
EXISTING: ☐ Reconstruction ☐ Alteration ☐ Repair ☒ Renovation
CONSTRUCTED: (date) ORIGINAL USE(S) (Ch. 3): Assembly - Place for Worship
RENOVATED: (date) 2001 CURRENT USE(S) (Ch. 3): Assembly - Place for Worship
PROPOSED USE(S) (Ch. 3): Assembly - Place for Worship

BASIC BUILDING DATA
Construction Type: ☐ I-A ☐ II-A ☒ III-A ☐ IV ☐ V-A
(check all that apply) ☐ I-B ☐ II-B ☐ III-B ☐ V-B
Sprinklers: ☒ No ☐ Partial ☐ Yes ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
Standpipes: ☒ No ☐ Yes Class ☐ I ☐ II ☐ III ☐ Wet ☐ Dry
Fire District: ☐ No ☒ Yes (Primary) Flood Hazard Area: ☒ No ☐ Yes
Building Height: (feet) Gross Building Area:
SEE ATTACHED SHEET T1.2 - 2001 CODE SUMMARY FOR ALLOWABLE AREA AND ALLOWABLE HEIGHT ANALYSIS. THIS PROJECT INVOLVES NO ADDITIONAL AREA.
FLOOR EXISTING (SQ FT) NEW (SQ FT) SUB-TOTAL
6th Floor
5th Floor
4th Floor
3rd Floor
2nd Floor
Mezzanine
1st Floor
Basement
TOTAL

2012 NC Administrative Code and Policies

LIFE SAFETY SYSTEM REQUIREMENTS	
Emergency Lighting:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
Exit Signs:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
Fire Alarm:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
Smoke Detection Systems:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial
Panic Hardware:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes

LIFE SAFETY PLAN REQUIREMENTS	
Life Safety Plan Sheet #:	
<input type="checkbox"/> Fire and/or smoke rated wall locations (Chapter 7)	
<input type="checkbox"/> Assumed and real property line locations	
<input type="checkbox"/> Exterior wall opening area with respect to distance to assumed property lines (705.8)	
<input type="checkbox"/> Existing structures within 30' of the proposed building	
<input type="checkbox"/> Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.1)	
<input checked="" type="checkbox"/> Occupant loads for each area	
<input checked="" type="checkbox"/> Exit access travel distances (1016)	
<input checked="" type="checkbox"/> Common path of travel distances (1014.3 & 1028.8)	
<input checked="" type="checkbox"/> Dead end lengths (1018.4)	
<input checked="" type="checkbox"/> Clear exit widths for each exit door	
<input checked="" type="checkbox"/> Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.1)	
<input checked="" type="checkbox"/> Actual occupant load for each exit door	
<input type="checkbox"/> A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation	
<input type="checkbox"/> Location of doors with panic hardware (1008.1.10)	
<input type="checkbox"/> Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)	
<input type="checkbox"/> Location of doors with electromagnetic egress locks (1008.1.9.8)	
<input type="checkbox"/> Location of doors equipped with hold-open devices	
<input type="checkbox"/> Location of emergency escape windows (1029)	
<input type="checkbox"/> The square footage of each fire area (902)	
<input type="checkbox"/> The square footage of each smoke compartment (407.4)	
<input type="checkbox"/> Note any code exceptions or table notes that may have been utilized regarding the items above	

STRUCTURAL DESIGN	
DESIGN LOADS:	
Importance Factors:	Wind (I _w) 1.15 Snow (I _s) 1.10 Seismic (I _e) 1.25
Live Loads:	Roof 20 psf Mezzanine N/A psf Floor 100 psf
Ground Snow Load:	15 psf
Wind Load:	Basic Wind Speed 90 mph (ASCE-7) Exposure Category C Wind Base Shears (for MWFRS) V _x = N/A V _y = N/A

2012 NC Administrative Code and Policies

SEISMIC DESIGN CATEGORY:	<input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D
Provide the following Seismic Design Parameters:	
Occupancy Category (Table 1604.5)	<input type="checkbox"/> I <input type="checkbox"/> II <input checked="" type="checkbox"/> III <input type="checkbox"/> IV
Spectral Response Acceleration S _s 58 %g	S ₁ 25 %g
Site Classification (Table 1613.5.2)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input checked="" type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F
Data Source:	<input type="checkbox"/> Field Test <input checked="" type="checkbox"/> Presumptive <input type="checkbox"/> Historical Data
Basic structural system (check one)	
<input type="checkbox"/> Bearing Wall	<input type="checkbox"/> Dual w/Special Moment Frame
<input checked="" type="checkbox"/> Building Frame	<input type="checkbox"/> Dual w/Intermediate R/C or Special Steel
<input type="checkbox"/> Moment Frame	<input type="checkbox"/> Inverted Pendulum
Seismic base shear: V _x = 5 k V _y = 5 k	
Analysis Procedure:	<input type="checkbox"/> Simplified <input checked="" type="checkbox"/> Equivalent Lateral Force <input type="checkbox"/> Dynamic
Architectural, Mechanical, Components anchored? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
LATERAL DESIGN CONTROL: Earthquake <input checked="" type="checkbox"/> Wind <input checked="" type="checkbox"/>	
SOIL BEARING CAPACITIES:	
Field Test (provide copy of test report)	N/A psf
Presumptive Bearing capacity	N/A psf
File size, type, and capacity	N/A
SPECIAL INSPECTIONS REQUIRED: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

NO CHANGES TO PLUMBING FIXTURES

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, ICC, etc., describe below)

ENERGY SUMMARY

NO CHANGES TO EXTERIOR SURFACES. ALL WORK IS INTERIOR

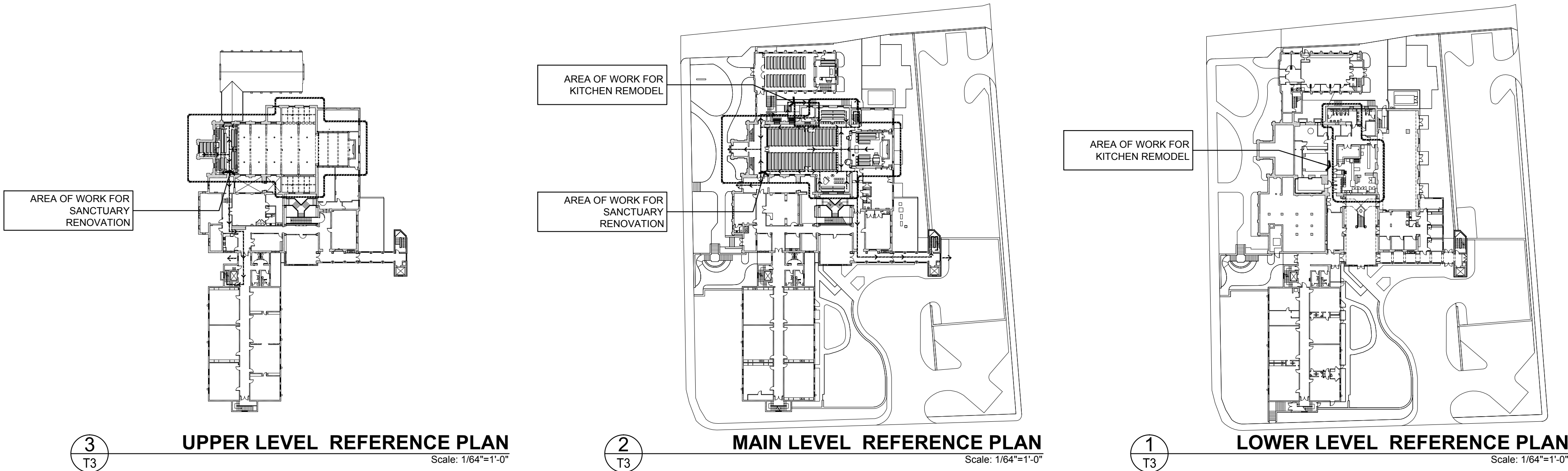
MECHANICAL SUMMARY

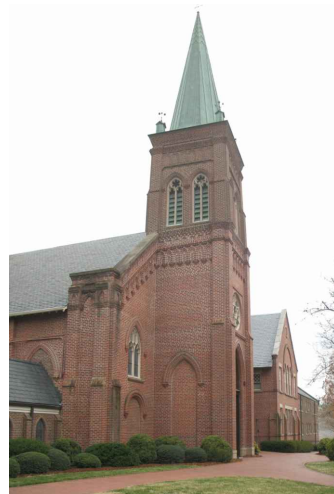
REFER TO SHEET M1 IN MECHANICAL DRAWINGS FOR THE SANCTUARY RENOVATION PROJECT

ELECTRICAL SUMMARY

REFER TO SHEET E1 IN ELECTRICAL DRAWINGS FOR THE SANCTUARY RENOVATION PROJECT

2012 NC Administrative Code and Policies





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LIFE SAFETY PLANS

DRAWING NO.

T.3A

KGA PROJECT NO. 1103.03

LIFE SAFETY NOTES - EXISTING WORSHIP SPACE

OCCUPANT LOAD

NAVE	
PEWS @ 18"	460
ELDER/DEACON CHAIRS	22
CHAIRS	10
MISC. OCCUPANTS (PIANO)	5
HC	4
TOTAL	497

CHANCEL

CHOIR PEWS @ 18"	44
MISC. OCCUPANTS (ORGAN, PIANO, PULPIT, TABLE, ETC.)	5
TOTAL	49

TOTAL OCCUPANTS MAIN LEVEL 546

BALCONY

PEWS @ 18"	129
TOTAL	129

TOTAL OCCUPANTS WORSHIP SPACE 675

EGRESS REQUIREMENTS

MAIN LEVEL
3 EXITS REQUIRED (FOR OCC LOADS FROM 501 TO 1,000 BY SECTION 1021.1)
MIN WIDTH OF EGRESS DOORS PER OCCUPANT = 0.2 PER OCCUPANT
PER 1005.1
545 X 0.20 = 109"
EXISTING # OF DOORS: 5 TOTAL (4 COUNTED FOR EGRESS CALCULATION)
D1 & D2 2 @ 40" CLEAR
D3 & D4 2 @ 33" CLEAR
D5 1 @ 33" CLEAR (NOT COUNTED)

COMBINED WIDTH = 146" (> 109" REQUIRED PER 1005.1)

BALCONY

2 EXITS REQUIRED (FOR OCC LOADS FROM 1 TO 500 BY SECTION 1021.1)

MIN WIDTH OF EGRESS STAIRS PER OCCUPANT = 0.3 PER OCCUPANT
PER 1005.1
129 X 0.30 = 39"

EXISTING # OF STAIRS: 2 TOTAL
S1 42"
S2 42"

EGRESS STAIR WIDTH = 84" (> 39" REQUIRED PER 1005.1)

MIN WIDTH OF EGRESS DOORS PER OCCUPANT = 0.2 PER OCCUPANT
PER 1005.1
129 X 0.20 = 26"

EXISTING # OF DOORS: 1
D6 36" CLEAR

TOTAL DOOR WIDTH = 36" (> 26" REQUIRED PER 1005.1)

LIFE SAFETY NOTES

EXISTING WORSHIP SPACE W/ PROPOSED ALTERATIONS

OCCUPANT LOAD

NAVE	
PEWS @ 18"	172
FIXED CHAIRS	150
CHAIRS	8
(1030 SF / 7 SF/OCCUPANT)	
HC	8
TOTAL	336

SANCTUARY - CHANCEL

CONCENTRATED CHAIRS (860 SF / 7 SF/OCCUPANT)	123
TOTAL	123

TOTAL OCCUPANTS MAIN LEVEL 461

BALCONY

PEWS @ 18"	97
MISC. OCCUPANTS (AV CONTROL, LIGHTS, SOLOIST, ETC.)	6
TOTAL	103

TOTAL OCCUPANTS WORSHIP SPACE 564

EGRESS REQUIREMENTS

MAIN LEVEL
2 EXITS REQUIRED (FOR OCC LOADS FROM 1 TO 500 BY SECTION 1021.1)
MIN WIDTH OF EGRESS DOORS PER OCCUPANT = 0.2 PER OCCUPANT
PER 1005.1
461 X 0.20 = 92"
EXISTING # OF DOORS: 5 TOTAL (4 COUNTED FOR EGRESS CALCULATION)
D1 & D2 2 @ 40" CLEAR
D3 & D4 2 @ 33" CLEAR
D5 1 @ 33" CLEAR (NOT COUNTED)

COMBINED WIDTH = 146" (> 92" REQUIRED PER 1005.1)

BALCONY

2 EXITS REQUIRED (FOR OCC LOADS FROM 1 TO 500 BY SECTION 1021.1)

MIN WIDTH OF EGRESS STAIRS PER OCCUPANT = 0.3 PER OCCUPANT
PER 1005.1
103 X 0.30 = 31"

EXISTING # OF STAIRS: 2 TOTAL
S1 42" CLEAR
S2 42" CLEAR

EGRESS STAIR WIDTH = 84" (> 31" REQUIRED PER 1005.1)

MIN WIDTH OF EGRESS DOORS PER OCCUPANT = 0.2 PER OCCUPANT
PER 1005.1
103 X 0.20 = 21"

EXISTING # OF DOORS: 1
D6 33" CLEAR

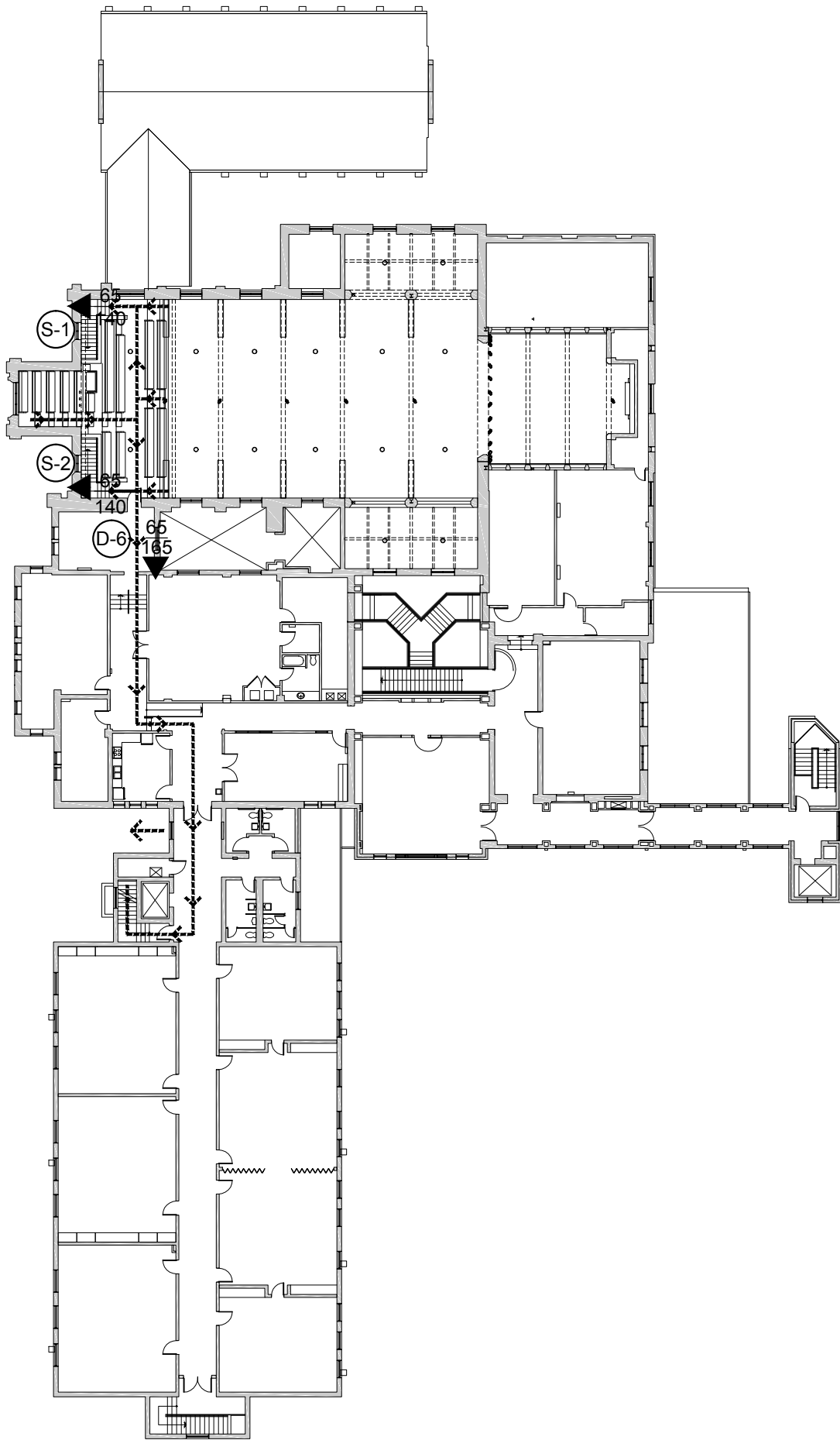
TOTAL DOOR WIDTH = 33" (> 21" REQUIRED PER 1005.1)

LEGEND

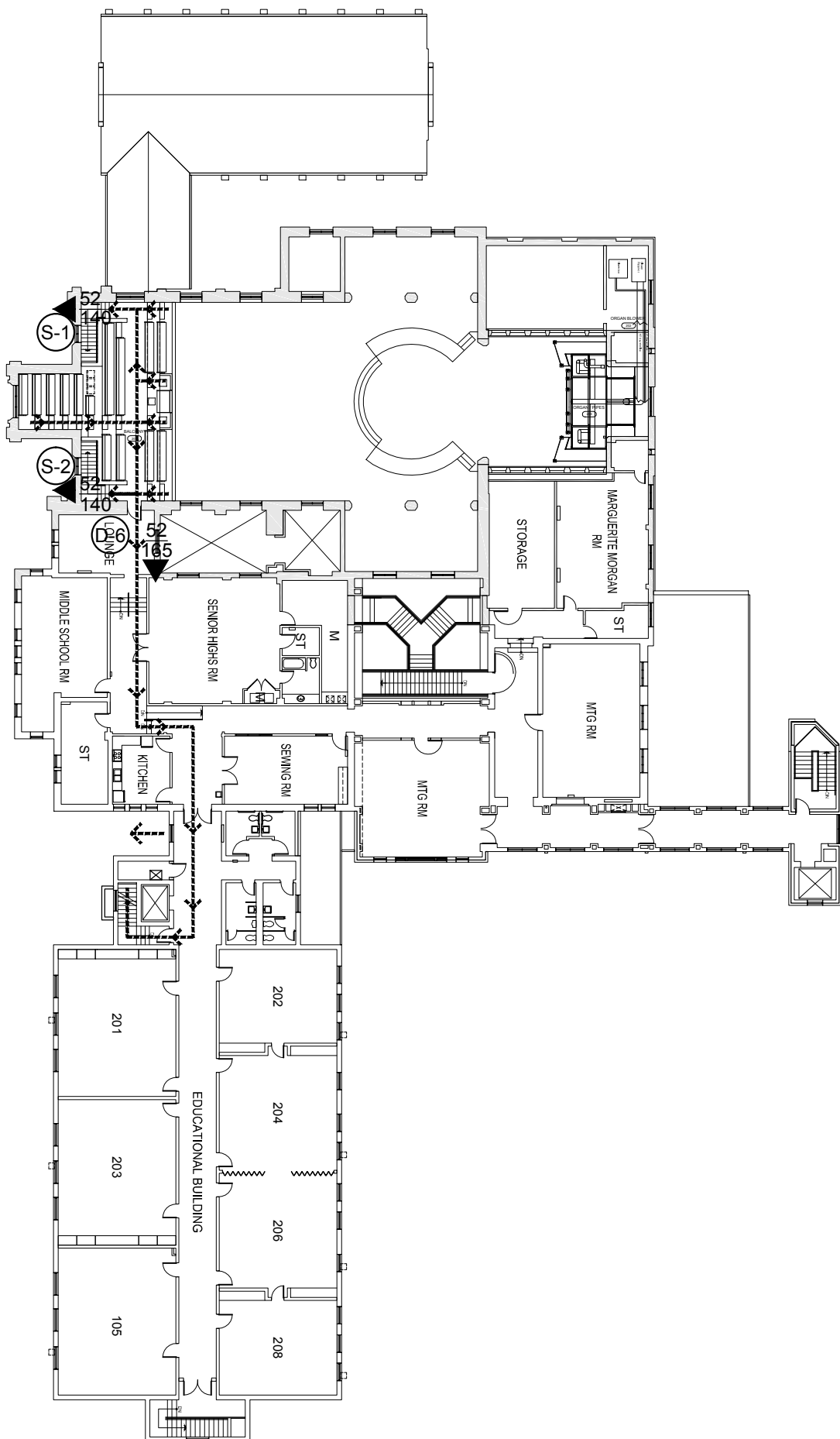
CONCENTRATED SEATING AREA - ALTERATION

EXISTING EGRESS DOOR TO REMAIN

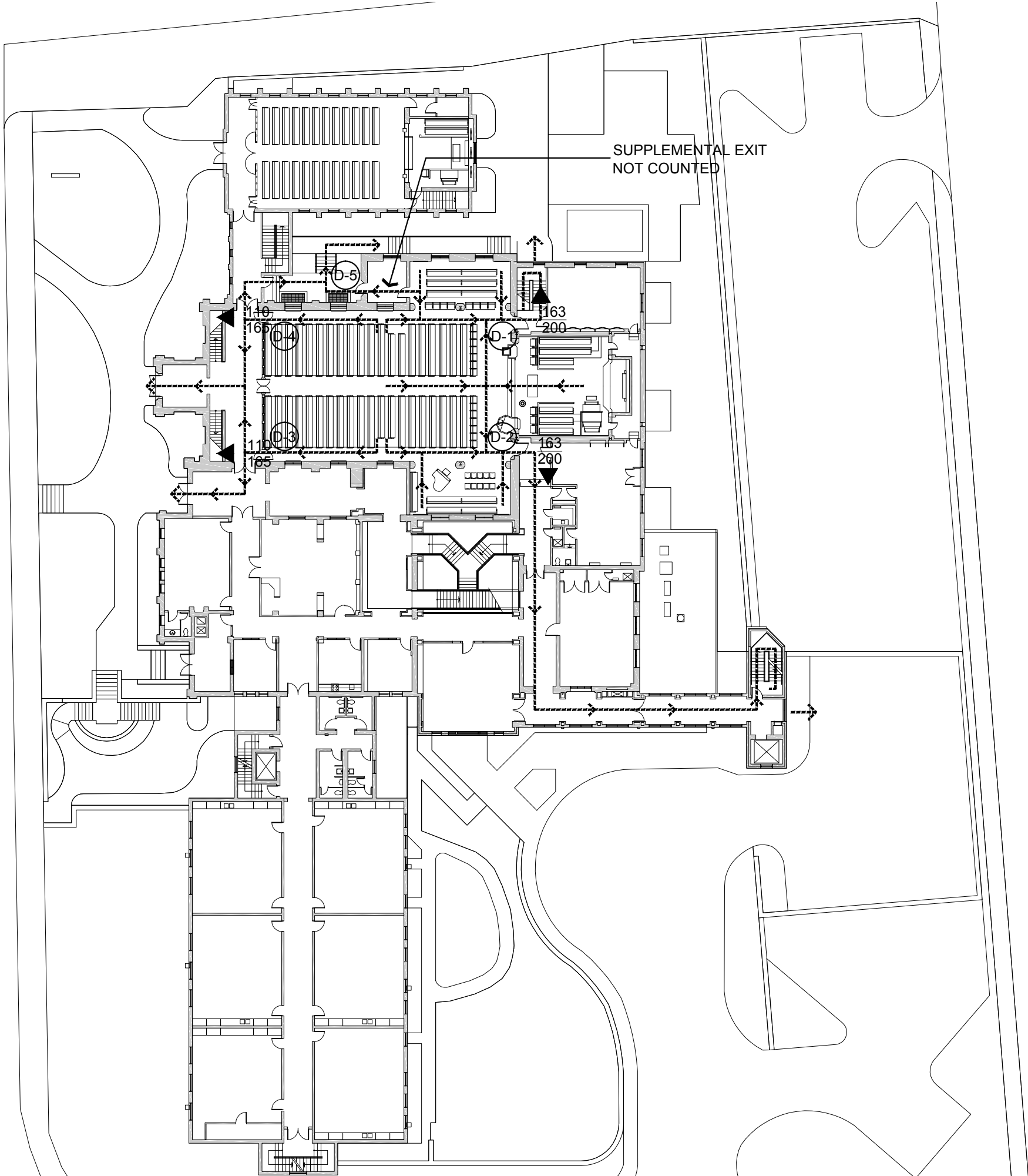
OF OCCUPANTS SERVED BY EGRESS COMPONENT
MAX. OCCUPANT CAPACITY OF EGRESS COMPONENT



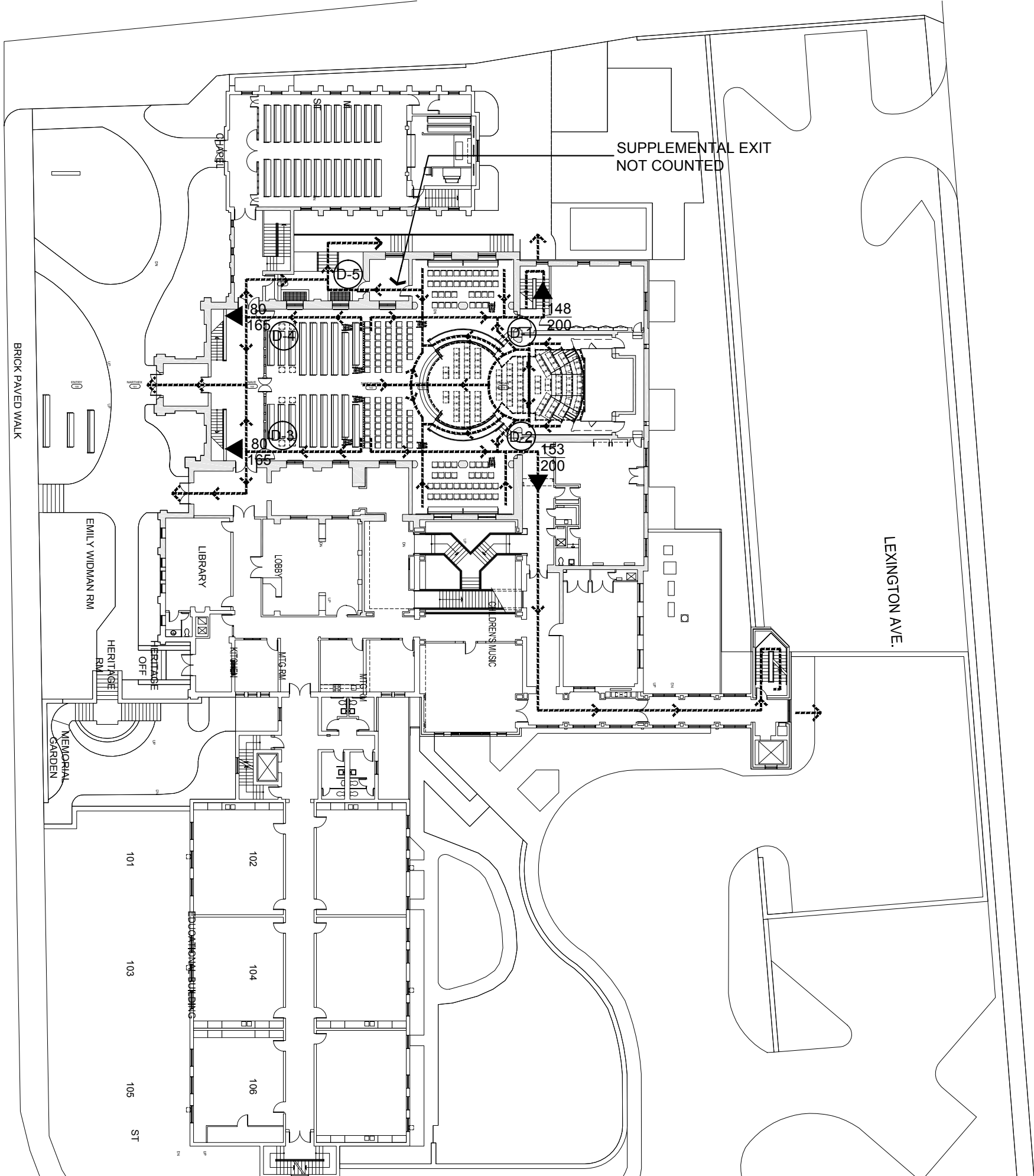
2
T3A
EXISTING UPPER LEVEL - LIFE SAFETY PLAN
Scale: 1/32"=1'-0"



4
T3A
PROPOSED UPPER LEVEL - LIFE SAFETY PLAN
Scale: 1/32"=1'-0"



1
T3A
EXISTING MAIN LEVEL - LIFE SAFETY PLAN
Scale: 1/32"=1'-0"



3
T3A
PROPOSED MAIN LEVEL - LIFE SAFETY PLAN
Scale: 1/32"=1'-0"

KITCHEN REMODEL FOR: FIRST PRESBYTERIAN CHURCH

40 Church St.
Asheville, NC

2012 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES) (Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: Kitchen Remodel for First Presbyterian Church
Address: 40 Church St., Asheville, NC Zip Code: 28801
Proposed Use: Prepare meals for church functions and day care facility
Owner/Authorized Agent: Paul Vlick Phone # (828) 277-6111 E-Mail: pvlick@earthlink.net
Owned By: ☐ City/County ☒ Private ☐ State
Code Enforcement Jurisdiction: ☒ City Asheville, NC ☐ County ☐ State

LEAD DESIGN PROFESSIONAL: George Stowe – Architect

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	<u>George Stowe – Architect</u>	<u>George Stowe</u>	<u>4501</u>	<u>(828) 251-2357</u>	<u>gstowearchitect@bellsouth.net</u>
Civil					
Electrical	<u>Tilden White & Associates, PLLC</u>	<u>Tilden White</u>	<u>028953</u>	<u>(828) 255-4327</u>	<u>tilden@tildenwhite.com</u>
Fire Alarm	<u>Tilden White & Associates, PLLC</u>	<u>Tilden White</u>	<u>028953</u>	<u>(828) 255-4327</u>	<u>tilden@tildenwhite.com</u>
Plumbing	<u>Tilden White & Associates, PLLC</u>	<u>Tilden White</u>	<u>028953</u>	<u>(828) 255-4327</u>	<u>tilden@tildenwhite.com</u>
Mechanical	<u>Tilden White & Associates, PLLC</u>	<u>Tilden White</u>	<u>028953</u>	<u>(828) 255-4327</u>	<u>tilden@tildenwhite.com</u>
Sprinkler-Standpipe					
Structural					
Retaining Walls >5' High					
Other					

2012 EDITION OF NC CODE FOR: ☐ New Construction ☐ Addition ☐ Upfit
EXISTING: ☐ Reconstruction ☐ Alteration ☐ Repair ☒ Renovation
CONSTRUCTED: (date) ORIGINAL USE(S) (Ch. 3): Assembly for Worship
RENOVATED: (date) 2001 CURRENT USE(S) (Ch. 3): Prepare meals for church function and day care facility
PROPOSED USE(S) (Ch. 3): same

CODE NOTES:

This project involves interior remodel of the existing kitchen area of 1505 sq.ft. The purpose is to improve the functional flow of the available kitchen area, new, more efficient appliances, upgrade to existing utilities, and improvement to building safety by the addition of a new range hood and vent system.

There are no structural changes, no changes to existing egress pattern, no new fire barriers.

The building code summary information that was prepared for the 2001 major additions and alterations to the existing facility is attached for reference. See attached sheet T1.2 dated May 4, 2001.

Note: The 2001 code summary lists construction type as Type V, protected. This type is equivalent to current Type III A (protected). In consideration of this information, 1 hour fire protection is added to 2 existing steel columns in the Pantry. The kitchen area was not included in the 2001 project area.

BASIC BUILDING DATA

Construction Type: ☐ I-A ☐ II-A ☒ III-A ☐ IV ☐ V-A
(check all that apply) ☐ I-B ☐ II-B ☐ III-B ☐ V-B
Sprinklers: ☒ No ☐ Partial ☐ Yes ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
Standpipes: ☒ No ☐ Yes Class ☐ I ☐ II ☐ III ☐ Wet ☐ Dry
Fire District: ☐ No ☒ Yes (Primary) Flood Hazard Area: ☒ ☐ Yes
Building Height: (feet)

See the attached 2001Code Summary for allowable area and allowable height analysis. This project involves no new additional area

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/ REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		1 hr.	1 hr.	T-1	UL Design X558 for steel columns		
Bearing Walls							
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing Walls and Partitions							
Exterior walls							
North							
East							
West							
South							
Interior walls and partitions							
Floor Construction							
Including supporting beams and joists							
Roof Construction							
Including supporting beams and joists							
Shaft Enclosures - Exit							
Shaft Enclosures - Other							
Corridor Separation							
Occupancy Separation							
Party/Fire Wall Separation							
Smoke Barrier Separation							
Tenant Separation							
Incidental Use Separation							

* Indicate section number permitting reduction

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: ☐ No ☒ Yes
Exit Signs: ☐ No ☒ Yes (outside project area)
Fire Alarm: ☐ No ☒ Yes (modifications to exst'g system)
Smoke Detection Systems: ☐ No ☒ Yes ☐ Partial (modifications to exst'g system)
Panic Hardware: ☐ No ☒ Yes (outside project area)

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: T-1
☒ Fire and/or smoke rated wall locations (Chapter 7)
☐ Assumed and real property line locations
☐ Exterior wall opening area with respect to distance to assumed property lines (705.8)
☐ Existing structures within 30' of the proposed building
☐ Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.1)
☒ Occupant loads for each project area
☒ Exit access travel distances (1016)
☐ Common path of travel distances (1014.3 & 1028.8)
☐ Dead end lengths (1018.4)
☒ Clear exit widths for each exit door
☒ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.1)
☐ Actual occupant load for each exit door
☐ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
☐ Location of doors with panic hardware (1008.1.10)
☐ Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)
☐ Location of doors with electromagnetic egress locks (1008.1.9.8)
☐ Location of doors equipped with hold-open devices
☐ Location of emergency escape windows (1029)
☐ The square footage of each fire area (902)
☐ The square footage of each smoke compartment (407.4)
☐ Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS (SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

No changes to plumbing fixtures

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, ICC, etc., describe below)

ONLINE CERTIFICATIONS DIRECTORY

Design No. X528 BXUV.X528 Fire-resistance Ratings - ANSI/UL 263

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

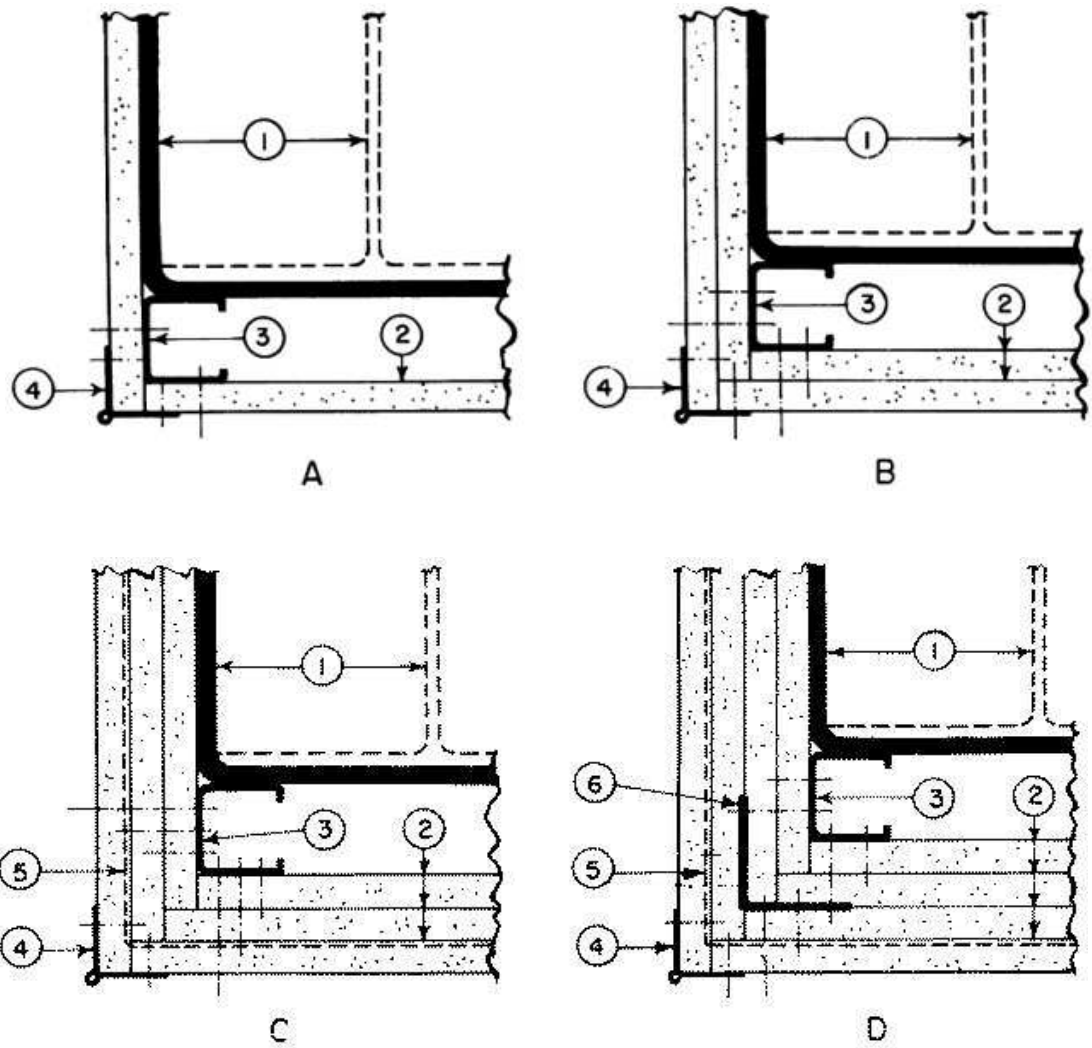
Fire-resistance Ratings - ANSI/UL 263

See General Information for Fire-resistance Ratings - ANSI/UL 263

Design No. X528

December 05, 2013

Ratings – 1, 2 and 3 Hr.



CORNER DETAILS OF WALLBOARD SUPPORT SYSTEMS WITHOUT STEEL COVERS

1. **Steel Column** – Min sizes of W-shaped and tubular steel columns which appear in the AISC Steel Construction Manual as shown under Item 2.
2. **Gypsum Board*** – Any 1/2 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G532 or U305. Min 1/2 in. or 5/8 in. thick gypsum board. Applied in layers as noted in the above illustrations. Boards are to be applied vertically without horizontal joints. Min total thickness of layers in inches for the various ratings and min column sizes are as follows:

W Shaped Column Min Column Size	Rating (Hr)			Corner Details For Various Rating			
	1	2	3	1 Hr	2 Hr	3 Hr	
Total thickness (in.)							
W4x13	1	1-1/2	2-1/4	B	C	D	
W6x15.5	1	1-1/2	2-1/4	B	C	D	
W10x49	1/2	1-1/8	1-7/8	A	B	C	
Tube Shaped columns							
TS 4 by 4							
by0.188	1	1-3/4	2-5/8	B	C	D	
TS 8 by 8							
by 0.250	5/8	1-1/2	2-1/4	A	C	D	

ACADIA DRY WALL SUPPLIES LTD (View Classification) – CKNX.R151870

AMERICAN GYPSUM CO (View Classification) – CKNX.R14196

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO (View Classification) – CKNX.R19374

CERTAINTED GYPSUM CANADA INC (View Classification) – CKNX.R15187

CERTAINTED GYPSUM INC (View Classification) – CKNX.R3660

CGC INC (View Classification) – CKNX.R19751

GEORGIA-PACIFIC GYPSUM LLC (View Classification) – CKNX.R2717

LA FARGE NORTH AMERICA INC (View Classification) – CKNX.R18482

LOADMASTER SYSTEMS INC (View Classification) – CKNX.R11809

NATIONAL GYPSUM CO (View Classification) – CKNX.R3501

PABCO BUILDING PRODUCTS LLC, DBA PABCO GYPSUM (View Classification) – CKNX.R7094

PANEL REV S A (View Classification) – CKNX.R21796

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD (View Classification) – CKNX.R19262

THAI GYPSUM PRODUCTS PCL (View Classification) – CKNX.R27517

UNITED STATES GYPSUM CO (View Classification) – CKNX.R1319

USG MEXICO S A DE CV (View Classification) – CKNX.R16089

2A. **Gypsum Board*** – As an alternate to Item 2- 3/4 in. thick gypsum wallboard. For 2 Hr rating, 1-1/2 in. total thickness, installed in accordance with corner detail B. For 3 Hr rating, 2-1/4 in. total thickness installed in accordance with corner detail C. Boards are to be applied vertically without horizontal joints.

CGC INC – Type IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO – Type IP-X3 or ULTRACODE

USG MEXICO S A DE CV – Type IP-X3 or ULTRACODE

2B. **Gypsum Board*** – (As an alternate to Items 2 and 2A) – Nominal 5/8 in. thick panels. One of the layers of **Gypsum Board** (Item 2) used to obtain the minimum required thickness in Item 2 may be substituted with one layer and secured as described in Item 2.

PABCO BUILDING PRODUCTS LLC, DBA PABCO GYPSUM – Type QuietRock ES

2C. **Wall and Partition Facings and Accessories*** – (As an alternate to Item 2 through 2B) – Composite Gypsum Panel – Nominal 5/8 in. thick panels. One of the layers of **Gypsum Board** (Item 2) used to obtain the minimum required thickness in Item 2 may be substituted with one layer of composite gypsum panel and secured as described in Item 2.

PABCO BUILDING PRODUCTS LLC, DBA PABCO GYPSUM – Type QuietRock QR

3. **Steel Stud** – 1-5/8 in. wide with 1-5/16 and 1-7/16 in. legs having a 1/4-in. folded flange, fabricated from No. 25 MSG galv steel, length to be 1/2 in. less than the assembly height.

3A. **As an alternate to Item 3 Steel Framing Members*** – galv. steel clips spaced 4 ft OC and 1-1/4 in. from top and bottom of column. A No. 28 MSG galv steel support angle with 1-1/4 in. length shall be placed over clips and secured with screws attaching the wallboard. The angle cut 1 in. less than assembly height splices in angle to occur over clips. The clips for use with wide flange columns only.

JOHN WAGNER ASSOCIATES INC, DBA GRABBER – Types CB, CBI, Clips.

BXUV.X528 - Fire-resistance Ratings - ANSI/UL 263

4. **Corner Beads** – No. 28 MSG galv steel, 1-1/4 in. legs to be attached to the wallboard with No. 6 by 1 in. screws spaced 12 in. OC max.

5. **Tie Wire** – No. 18 SWG steel wire spaced 24 in. OC used with second layer of wallboard.

6. **Screws** – For attaching first layer of wallboard to steel studs, and third layer of wallboard to 2 in. by 2 in. steel angle (25 Ga) to be No. 6 by 1 in. (or 1-1/4 in. for 3/4 in. thick wallboard) Phillips head self-drilling, self-tapping double lead screws spaced 24 in. OC. For attaching second layer of wallboard to steel studs and fourth layer of wallboard to 2 in. by 2 in. steel angle (25 Ga) to be No. 6 by 1-3/4 in. (or 2-1/4 in. for 3/4 in. thick wallboard) steel screws of the same type spaced 12 in. OC. For attaching third layer of wallboard to steel studs to be No. 8 by 2-1/4 in. screws of the same type spaced 12 in. OC.

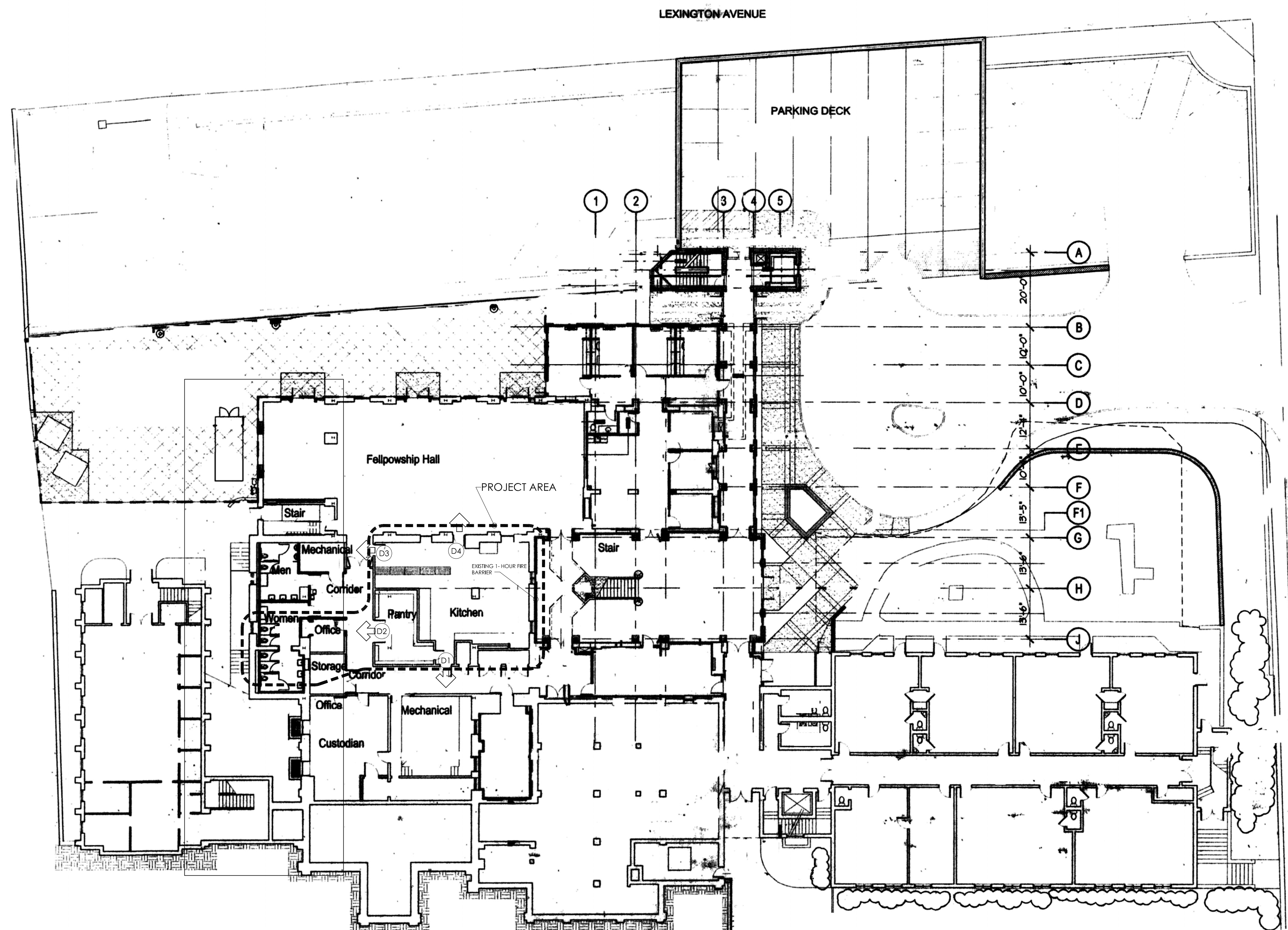
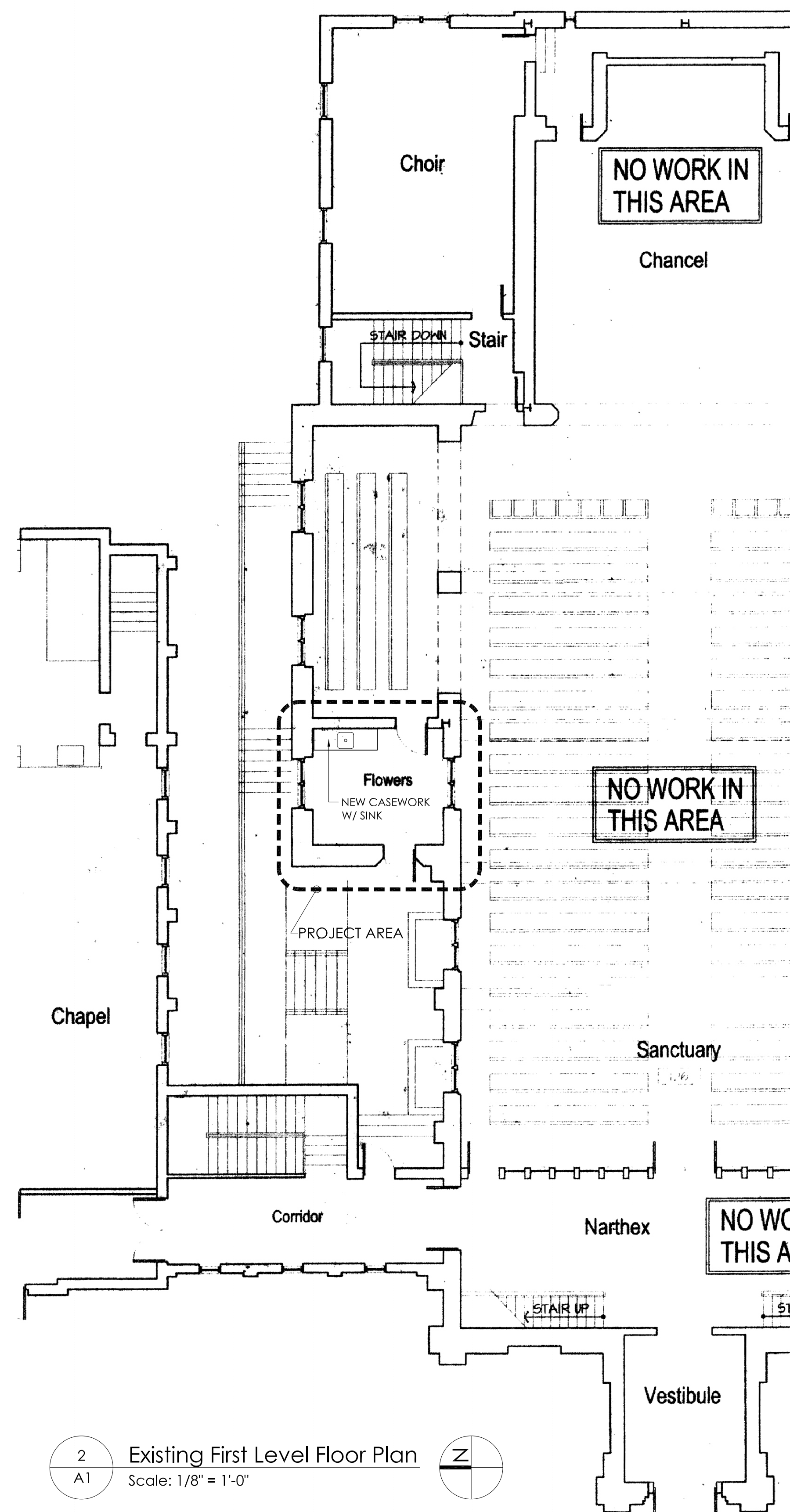
7. **Finishing System** – (Not Shown) – Joint compound applied over corner beads to a thickness of 1/16 in. ng the UL Classification Mark

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T1	TITLESHEET, APPENDIX B, UL LISTING	01-14-2014 REV. 01-16-2014 REV. 01-30-2014
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T1.2	CODE SUMMARY SHEET FOR REFERENCE	05-04-2001
A1	EXST'G. GROUND FLR./LIFE SAFETY PLAN, EXST'G. 1ST LEVEL FLR. PLAN	01-14-2014
A2	FLOOR PLANS, SECTIONS	01-14-2014 REV. 01-16-2014 REV. 01-30-2014
A3	REFLECTED CLNG. PLAN, FIN. SCH., CASEWORK ELEV.	01-14-2014
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P2	PLUMBING PLANS	01-30-2014
P3	PLUMBING DETAILS	01-30-2014
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E2	POWER AND LIGHTING PLANS	01-30-2014
E3	ELECTRICAL DETAILS & SCHEDULES	01-30-2014
H1	HOOD DETAILS & SCHEDULES	01-31-2014
H2	HOOD DETAILS & SCHEDULES	01-31-2014
H3	HOOD DETAILS & SCHEDULES	01-31-2014

ABBREVIATIONS

ABV	above	HWH	hot water heater
ACOUST	acoustic	INSUL	insulation
ACBLE	accessible	INT	interior
AC	acoustic ceiling tile	KD	kiln-dried
ADJ	adjacent	LAV	lavatory
AFF	above finished floor	LOC	location
ALT	alternate	LVL	laminated veneer lumber
ALUM	aluminum	LVR	lower
BEV	beveled	MAX	maximum
BLDG	building	MDF	medium density fiberboard
BO	bottom of	MDO	medium density overlay
BLKG	block	MECH	mechanical
BRD	board	MEMB	membrane
BRG	bearing	MFR	manufacturer
CAB	cabinet	MIN	minimum
CL	ceramic	MISC	miscellaneous
CJ	control joint	MO	masonry opening
CLST	closet	MLDG	moulding
CLNG	ceiling	MR	moisture resistant
CLR	clear[ance]	MRGB	moisture resistant gypsum wallboard
CMU	concrete masonry unit[s]	MTD	mounted
CO	cased opening	MTL	metal
COL	column	NIC	not in contract
CONC	concrete	NOM	nominal
CONT	continuous	NTS	not to scale
D/W	dishwasher	OC	on center
DEMO	demonish [demolition]	OH	overhead
DF	drinking fountain	OPNG	opening
DIM	dimension	OSB	oriented strand board
DISP	dispenser	OPP	opposite
DN	down	PAN	panel
DNSP	downspout	PERF	perforated
DTL	detail	PLAM	plastic laminate
DWG	drawing	PLBG	plumbing
EA	each	PLYWD	plywood
EJ	expansion joint	PR	por
ELEC	electrical	PSF	pounds per square foot
ELEV	elevation	PSI	pounds per square inch
EQ	equal	PSL	parallel strand lumber
EQUIP	equipment	PTD	pressure treated
EXST'G	existing	PTD	pointed
EXP	expansion	RAD	radius
EXT	exterior	R8	reinforcing bar
FD	floor drain	RCP	reflected ceiling plan
FEC	fire extinguisher cabinet	REQ'D	required
FG	finish face	RET	return
FG	fiberglass	REV	revised, revision
FIN	finish[ed]	RO	rough opening
FIN FL	finished floor	SAN	sanitary
FL	floor	SCH	schedule
FLG	flooring	SF	square foot,

T1.2

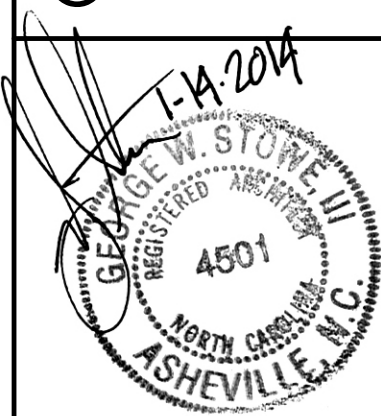


LIFE / SAFETY NOTES:

- 1.PROJECT AREA: KITCHEN / PANTRY = 1505 S.F.
/ 200 S.F./PERSON = 8 PERSON OCCUPANCY
2. PROVIDED: 4 MEANS OF EGRESS FROM PROJECT AREA
3. TRAVEL DISTANCE: <75'. SEE ALSO PLAN 1/A2
- 4.EXIT WIDTH DOOR 1: 36", DOOR 2: 60", DOOR 3: 36", DOORWAY 4: 36".
TOTAL EGRESS CAPACITY 168". REQUIRED 8 X 0.2" = 1.6"



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gstowe@architect@bellsouth.net
www.GeorgeStoweArchitect.com



DATE:
01-14-2014
REVISIONS:

Kitchen Remodel for:
FIRST PRESBYTERIAN CHURCH
Asheville, NC
40 Church St.

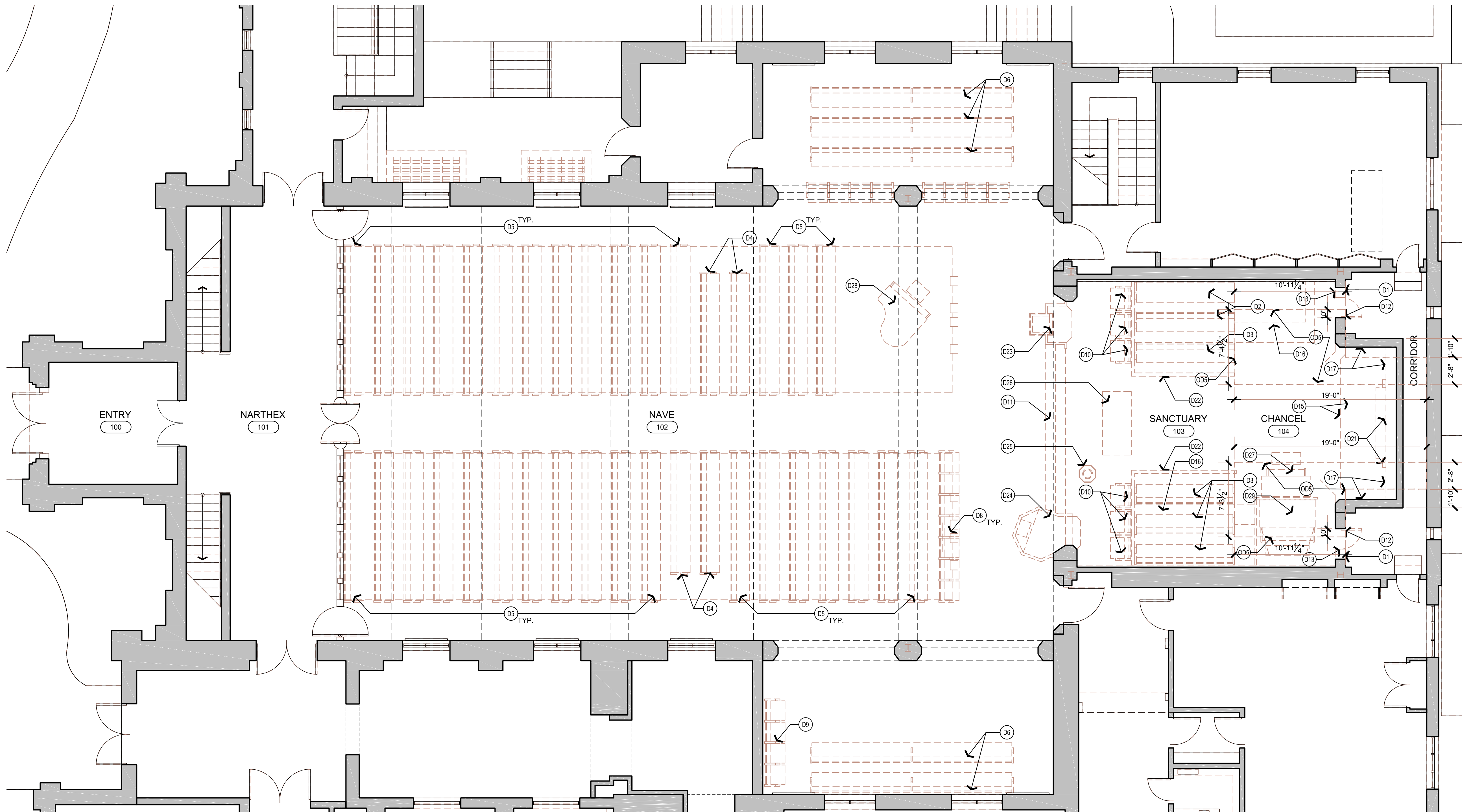
A1

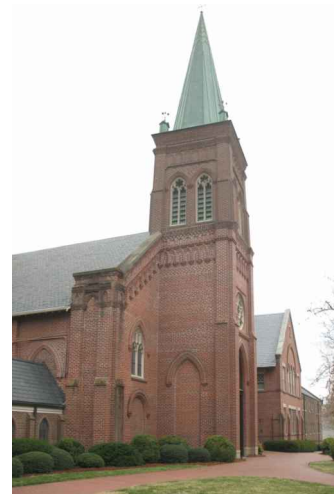
KGA PROJECT NO. 1103.03



- 1 DO NOT STRIP PEWS FOR REFINISHING
- 2 VERIFY THE NUMBER OF PEWS TYPE 4 TO BE RELOCATED PRIOR TO REFINISHING
- 3 BALCONY PEWS RECONFIGURATION: REDUCE LENGTH TO 11'-0". REINSTALL PEW ENDS AT BOTH SIDES. REFINISH AND SALVAGE FOR REINSTALLATION
- 4 ALL LITURGICAL FURNITURE MUST BE REMOVED, CLEANED AND SALVAGED FOR MODIFICATIONS FROM OWNER'S FURNITURE CONTRACTOR

CHURCH MAIN LEVEL DEMOLITION PLAN





FIRST
PRESBYTERIAN CHURCH
SANCTUARY RENOVATION

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

100% DESIGN DEVELOPMENT SET	13 DEC 2013
FOR BID / PERMIT	6 MAR 2014
PERMIT PACKAGES	14 MAR 2014

CONSTRUCTION DOCUMENTS PHASE
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DEMOLITION BALCONY LEVEL

DRAWING NO.

A1.1

KGA PROJECT NO. 1103.03

LEGEND

	DEMOLITION
	EXISTING WALLS

LEGEND

DEMOLITION

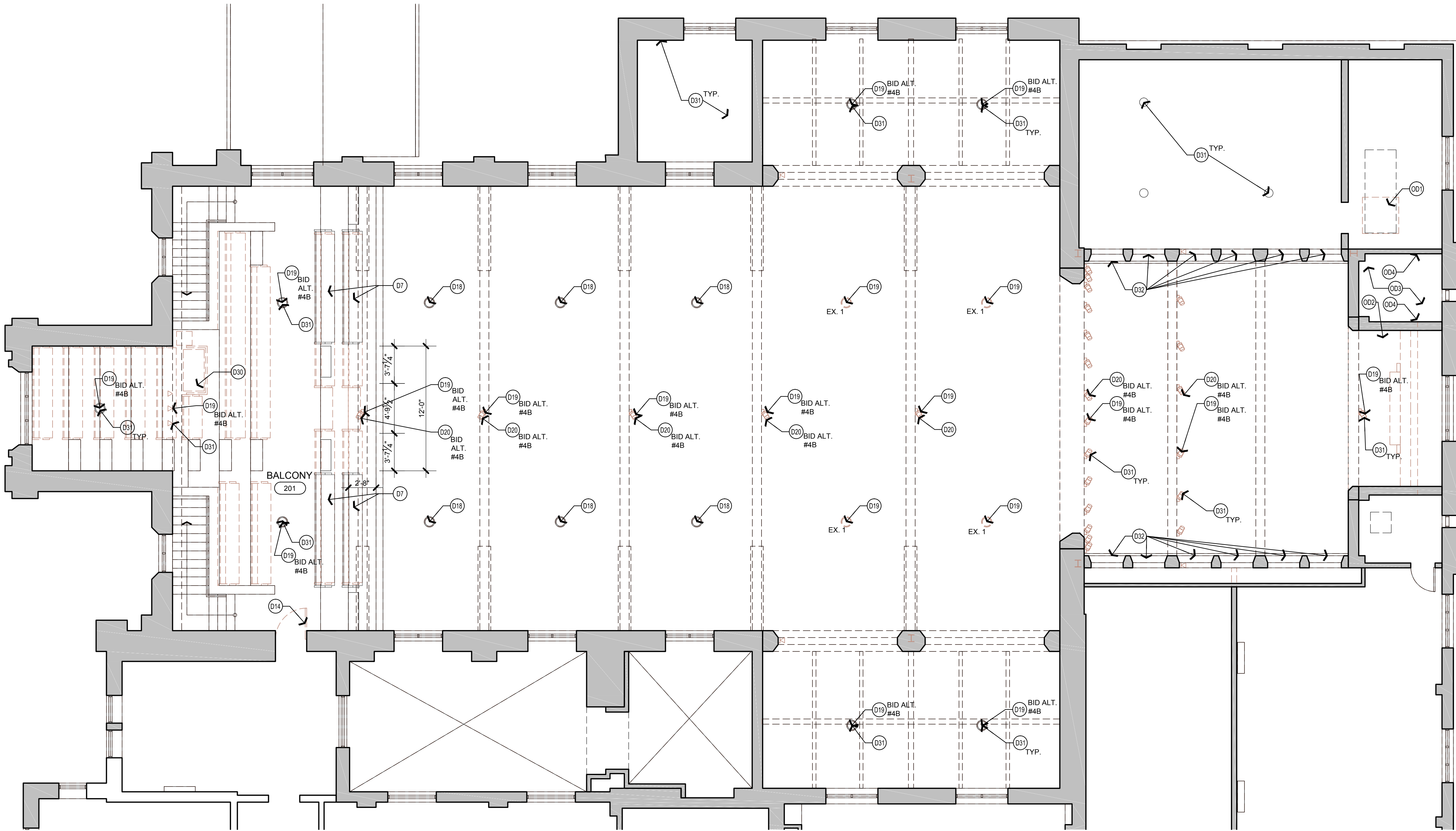
- (D1) PARTIALLY DEMO WALLS TO THE EXTENT INDICATED. SALVAGE WAINSCOT
(D2) TYPE 1 PEWS: (2) 9'-10" SINGLE PEW END. REMOVE, CLEAN, REFINISH AND SALVAGE FOR RELOCATION
(D3) TYPE 2 PEWS: (4) 9'-10" DOUBLE PEW END. REMOVE, CLEAN, REFINISH AND SALVAGE FOR RELOCATION
(D4) TYPE 3 PEWS: (4) 12'-2". REMOVE, CLEAN, REFINISH AND SALVAGE FOR RELOCATION
(D5) TYPE 4 PEWS: (33) 14'-11". REMOVE, CLEAN, REFINISH AND SALVAGE FOR RELOCATION. SEE NOTE 2
(D6) TYPE 5 PEWS: (5) 20'-0". REMOVE, CLEAN, REFINISH AND SALVAGE FOR RELOCATION. SEE NOTE 2
(D7) TYPE 6 PEWS: (4) 14'-11" AT BALCONY. REMOVE, CLEAN, MODIFY AND REFINISH. SEE NOTE 3
(D8) ELDER / DEACON SEATING: (1) 14'-11". REMOVE, CLEAN AND DELIVER TO OWNER
(D9) ELDER / DEACON SEATING: (1) 9'-0". REMOVE, CLEAN AND DELIVER TO OWNER
(D10) DEACON SEATS IN CHANCEL: (6) 29"W x 21" D. REMOVE, CLEAN AND DELIVER TO OWNER
(D11) REMOVE FRONT STEPS TO CHANCEL.
(D12) PROTECT FLOORING
(D13) REMOVE DOOR & FRAME. REMOVE WAINSCOT FROM DOOR, CLEAN AND SALVAGE FOR REUSE
(D14) PARTIALLY REMOVE WAINSCOT, CLEAN AND SALVAGE FOR REUSE AT RECONFIGURED DOOR
(D15) REMOVE DOOR AND DOOR HARDWARE. CLEAN, REFINISH AND SALVAGE FOR REINSTALLATION
(D16) REMOVE ALTAR PLATFORM. INSPECT FLOOR UNDERNEATH AND PREPARE FOR ORGAN INSTALLATION. SEE ORGAN REQUIREMENTS.
(D17) REMOVE CHOR PLATFORM. INSPECT FLOOR AND REPAIR AS NECESSARY. INSPECT WAINSCOT TO VERIFY CONTINUITY BEHIND CHOR PLATFORM AND RECONFIGURE AS NECESSARY TO MATCH EXISTING.
(D18) REMOVE ALTAR WAINSCOT. CLEAN AND SALVAGE FOR REUSE
(D19) EXIST. FIXTURES REBUILD, REWIRE, RELAMP, REINSTALL IN EXIST. LOCATION -SEE SCHEDULE
(D20) REMOVE EXIST. LIGHT FIXTURE & SALVAGE FOR OWNER
(D21) REMOVE ALL EXISTING TRACK LIGHTS AND CONDUIT RUNS
(D22) REMOVE ALTAR AND MILLWORK ASSOCIATED, TRIM, FINALS. CLEAN AND SALVAGE FOR REUSE
(D23) REMOVE KNEE WALL ENCLOSING CHOR.
(D24) PROTECT EXISTING WAINSCOT
(D25) REMOVE LECTERN AND SALVAGE TO BE RELOCATED
(D26) REMOVE PULPIT. CLEAN AND SALVAGE FOR RECONFIGURATION
(D27) REMOVE BAPTISMAL FONT. SALVAGE FOR REFINISH AND RELOCATION
(D28) REMOVE ALTAR. CLEAN AND SALVAGE FOR RELOCATION
(D29) REMOVE PIANO AND DELIVER TO OWNER
(D30) REMOVE PIANO AND SALVAGE FOR RELOCATION
(D31) REMOVE ORGAN CONSOLE
(D32) REMOVE SOUND CONTROL - ALTERNATE
(D33) EXISTING LIGHT FIXTURE TO REMAIN -BASE BID
(D34) REMOVE EXIST. FINISHES IN OPENINGS TO BE REPLACED AND REFINISHED

ORGAN INFRASTRUCTURE DEMOLITION PACKAGE

- (D35) ENLARGE OPENING IN BLOWER ROOM FLOOR TO ALLOW FOR THE REMOVAL AND INSTALLATION OF THE EXISTING BLOWER
(D36) REMOVE EXISTING HVAC DUCTWORK AT REAR OF CHANCEL
(D37) REMOVE HVAC UNIT TO ALLOW FOR WIND LINE PIPES FROM ORGAN BLOWER TO ORGAN
(D38) CREATE OPENING IN WALLS AS REQUIRED FOR 15" AND 3" WIND LINE PIPES FROM ORGAN BLOWER TO ORGAN
(D39) REMOVE FLOORING AS REQUIRED TO INSTALL ORGAN STRUCTURAL SUPPORTS. SALVAGE FLOOR FOR REINSTALLATION IN DISTURBED AREAS OUTSIDE ORGAN LIMITS. PROVIDE TEMP SHORING FOR EXIST FRAMING AS REQUIRED. SEE STRUCTURAL

NOTES FOR DEMOLITION

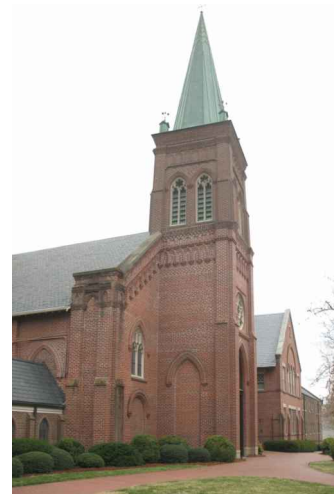
- 1 DO NOT STRIP PEWS FOR REFINISHING
2 VERIFY THE NUMBER OF PEWS TYPE 4 TO BE RELOCATED PRIOR TO REFINISHING
3 BALCONY PEWS RECONFIGURATION: REDUCE LENGTH TO 11'-0". REINSTALL PEW ENDS AT BOTH SIDES, REFINISH AND SALVAGE FOR REINSTALLATION
4 ALL LITURGICAL FURNITURE MUST BE REMOVED, CLEANED AND SALVAGED FOR MODIFICATIONS FROM OWNER'S FURNITURE CONTRACTOR



BALCONY LEVEL DEMOLITION PLAN

Scale: 3/16"=1'-0"

1
A1.1



FIRST
PRESBYTERIAN CHURCH
SANCTUARY RENOVATION

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

100% DESIGN DEVELOPMENT SET	13 DEC 2013
FOR BID / PERMIT	6 MAR 2014
PERMIT PACKAGES	14 MAR 2014

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CHURCH MAIN LEVEL PLAN

DRAWING NO.

A2.0

KGA PROJECT NO. 1103.03

ORGAN INFRASTRUCTURE PACKAGE

- REINSTALL ACCESS STAIR IN BLOWER ROOM AFTER ORGAN INSTALLATION
- INSTALL (1) 15" Ø & (1) 3" Ø PVC WIND LINE FROM BLOWER TO REAR CENTER OF ORGAN ABOVE REAR WALKWAY.
- COVER ALL BLOWER ROOM INTERIOR SURFACES AND CEILING W/ ONE LAYER OF 5/8" GWB. TAPE JOINTS & PAINT WHITE
- PAINT BLOWER ROOM FLOOR GRAY
- COVER ORGAN CHAMBER OPENINGS W 2 LAYERS OF 3/4" PLYWOOD FULLY GLUED AND SCREWED W/ OVERLAPPING BEAMS. APPLY COVERS BEHIND OPENINGS. STAIN EXPOSED SURFACE. PLYWOOD SPECIES, VENEER CUT AND STAIN TO MATCH EXISTING CHANCEL FINISHES
- STL CHANNELS ATTACHED TO WALL TO DISTRIBUTE ORGAN LOADS. SEE STRUCTURAL
- LVL BEAMS ON CHANCEL CONC. FLOOR TO DISTRIBUTE ORGAN LOADS. SEE STRUCTURAL

LEGEND

5. METALS

- PTD MTL. HANDRAIL

ALTERNATE: BRONZE HAND RAILS

6. WOOD, PLASTICS, AND COMPOSITES

- WD CHANCEL EXTENSION
- WD STEPS TO CHANCEL
- HC WD RAMP
- DEMOUNTABLE ELEVATED CHOIR
- ORGAN WAINSCOT PANELING BY ORGAN MANUF.
- INSPECT WAINSCOT BEHIND THE REMOVED CHOIR PLATFORM TO VERIFY CONTINUITY OF WAINSCOT CONFIGURATION. RECONFIGURE AS NECESSARY TO MATCH EXISTING
- WD FLOOR EXTENSION FOR AV CONTROL CONSOLE
- WD VENEER ON WD STUDS WALL ENCLOSURE FOR AV CONTROL. PLYWOOD SPECIES VENEER CUT AND STAIN TO MATCH EXISTING FINISHES
- REINSTALL SALVAGED WAINSCOT FROM ALTAR AT THE EXTERIOR FACE OF AV CONTROL WALL ENCLOSURE. REFINISH TO MATCH EXISTING FINISHES

8. DOORS & WINDOWS

- REINSTALL EXISTING DOOR TO SWING IN THE OPPOSITE DIRECTION, REUSE HINGES. PROVIDE NEW JAMB AS REQUIRED. WD SPECIES AND FINISH TO MATCH EXISTING. MODIFY THRESHOLD AS REQUIRED
- REPLACE WD DOOR. INCREASE WIDTH TO THE ADJACENT WAINSCOT PANEL. VERIFY DIMENSIONS IN FIELD. SALVAGE WAINSCOT FROM EXISTING DOOR AND REINSTALL ON NEW DOOR.

9. FINISHES

- REFINISH EXIST WD FLOORING
- STRIP, CLEAN AND REFINISH STONE FLOOR
- WD FLOORING. SPECIES AND FINISH T.M.E.
- LINOLEUM FLOOR ON TOP OF EXIST FLOORING
- REFINISH WAINSCOT
- REFINISH DOORS
- REFINISH WD & GLASS PARTITION AND DOORS ASSOCIATED
- CLEAN CEMENTITIOUS PLASTER AND STONE TRIM AT WALLS
- ALTERNATE: RESEAL CEMENTITIOUS PLASTER WITH OPAQUE STAIN TO ESTABLISH CONSISTENT APPEARANCE
- REPAIR DAMAGED AREAS OF CEMENTITIOUS PLASTERS AT WALLS AND AROUND AIR GRILLES
- REFINISH BALCONY FRONT GUAR RAIL AND WD CEILING UNDER BALCONY
- ALTERNATE: REPAIR, CLEAN AND REFINISH WOOD AT CEILING AT WORSHIP SPACE, INCLUDING VENEER TRUSSES, PURLINS, SPACERS, BRACKETS, DECK AND ALL OTHER WOOD TRIM

10. SPECIALTIES

- DEMOUNTABLE WD SCREEN WALL. ALTERNATE
- FUTURE FLOOR RISING PROJECTION SCREEN. PROVIDE AV / ELEC CONNECTION AND COVERED FLOOR OPENING FOR FUTURE INSTALLATION

12. FURNISHINGS

- LITURGICAL FURNITURE, N.I.C.
- SEATING, N.I.C.
- RELOCATED PIANO
- ORGAN CONSOLE
- AV ROLLTOP CONTROL DESK. ALTERNATE
- RELOCATED TYPE 1 PEWS
- RELOCATED TYPE 2 PEWS
- RELOCATED TYPE 3 PEWS
- RELOCATED TYPE 4 PEWS
- RELOCATED TYPE 5 PEWS
- MODIFIED TYPE 6 PEWS

23. HVAC

- HVAC GRILL AT STEP AND SIDE OF RAISED SANCTUARY. SEE MECHANICAL
- HVAC RETURN GRILLES AT WAINSCOT. SEE MECHANICAL
- HVAC RETURN GRILLES AT FLOOR. SEE MECHANICAL
- HVAC SUPPLY GRILL. SEE MECHANICAL

26. ELECTRICAL

- EXIST. LIGHT FIXTURE TO REMAIN. RELAMP, CLEAN -SEE FIXTURE SCHED.
- CEILING MTD. PENDANT FIXTURE
- 12" Ø CHANDELIER W/ UP & DN LIGHTS
- TRACK LIGHTS, TYP.
- TRACK LIGHTS W/ MULTI-CIRCUITS, TYP.
- UP LIGHT, TYP.
- AV / ELEC / ORGAN FLOOR BOX. SEE AV AND ELECTRICAL
- SURFACE MTD. PENDANT FIXTURE

- ADD CIRCUITS TO EXIST. ELEC PANELS TO ACCOMMODATE OUTLETS, LIGHT FIXTURES AND ORGAN EQUIPMENT

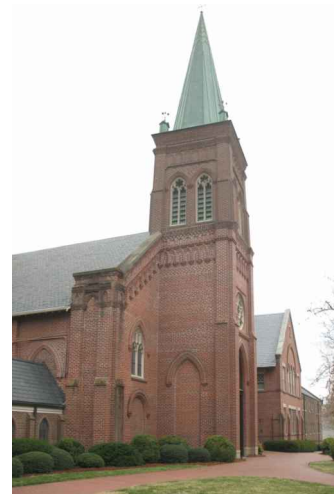
ALTERNATE: REMOVE AND REPLACE ELECTRICAL PANELS, BRANCH CIRCUITS AND WIRING SERVING WORSHIP SPACE

- LIGHTING ON / OFF SWITCHES
- LIGHTING REMOTE CONTROLS
- LIGHTING MASTER CONTROLLER
- WIRELESS SENSORS AT TRUSSES, AS REQUIRED FOR LIGHTING FIXTURES

MAIN LEVEL PLAN

Scale: 3/16"=1'-0"

1
A2.0



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SANCTUARY RENOVATION

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BALCONY LEVEL PLAN

DRAWING NO.

A2.1

KGA PROJECT NO. 1103.03

LEGEND

5. METALS

(5.1) PTD MTL. HANDRAIL

ALTERNATE: BRONZE HAND RAILS

6. WOOD, PLASTICS, AND COMPOSITES

(6.1) WD CHANCEL EXTENSION

(6.2) WD STEPS TO CHANCEL

(6.3) HC WD RAMP

(6.4) DEMOUNTABLE ELEVATED CHOIR

(6.5) ORGAN WAINSCOT PANELING BY

ORGAN MANUF.

(6.6) INSPECT WAINSCOT BEHIND THE REMOVED

CHOIR PLATFORM TO VERIFY CONTINUITY OF

WAINSCOT CONFIGURATION. RECONFIGURE AS

NECESSARY TO MATCH EXISTING

WD FLOOR EXTENSION FOR AV CONTROL

CONSOLE

(6.8) FOR AV CONTROL. PLYWOOD SPECIES

VENEER CUT AND STAIN TO MATCH EXISTING

FINISHES

(6.9) REINSTALL SALVAGED WAINSCOT FROM

ALTAR AT THE EXTERIOR FACE OF AV

CONTROL WALL ENCLOSURE. REFINISH TO

MATCH EXISTING FINISHES

8. DOORS & WINDOWS

(8.1) REINSTALL EXISTING DOOR TO SWING IN THE

OPPOSITE DIRECTION. REUSE HINGES. PROVIDE NEW

JAMB AS REQUIRED. WD SPECIES AND FINISH TO

MATCH EXISTING. MODIFY TRESHOLD AS REQUIRED

(8.2) REPLACE WD DOOR. INCREASE WIDTH TO THE

ADJACENT WAINSCOT PANEL. VERIFY DIMENSIONS

IN FIELD. SALVAGE WAINSCOT FROM EXISTING

DOOR AND REINSTALL ON NEW DOOR.

9. FINISHES

(9.1) REFINISH EXIST WD FLOORING

(9.2) STRIP, CLEAN AND REFINISH STONE FLOOR

(9.3) WD FLOORING. SPECIES AND FINISH T.M.E.

(9.4) LINOLEUM FLOOR ON TOP OF EXIST

FLOORING

(9.5) REFINISH WAINSCOT

(9.6) REFINISH DOORS

(9.7) REFINISH WD & GLASS PARTITION AND DOORS

ASSOCIATED

(9.8) CLEAN CEMENTITIOUS PLASTER AND STONE

TRIM AT WALLS

ALTERNATE: RESEAL CEMENTITIOUS PLASTER WITH

OPAQUE STAIN TO ESTABLISH CONSISTENT APPEARANCE

(9.9) REPAIR DAMAGED AREAS OF CEMENTITIOUS

PLASTERS AT WALLS AND AROUND AIR GRILLES

(9.10) REFINISH BALCONY FRONT GUAR RAIL AND WD

CEILING UNDER BALCONY

ALTERNATE: REPAIR, CLEAN AND REFINISH WOOD

(9.11) AT CEILING AT WORSHIP SPACE, INCLUDING

VENEER TRUSSES, PURLINS, SPACERS, BRACKETS,

DECK AND ALL OTHER WOOD TRIM

10. SPECIALTIES

(10.1) DEMOUNTABLE WD SCREEN WALL.

ALTERNATE

(10.2) FUTURE FLOOR RISING PROJECTION SCREEN.

PROVIDE AV / ELEC CONNECTION AND

COVERED FLOOR OPENING FOR FUTURE

INSTALLATION

12. FURNISHINGS

(12.1) LITURGICAL FURNITURE, N.I.C.

(12.2) SEATING, N.I.C.

(12.3) RELOCATED PIANO

(12.4) ORGAN CONSOLE

(12.5) AV ROLLTOP CONTROL DESK. ALTERNATE

(12.6) RELOCATED TYPE 1 PEWS

(12.7) RELOCATED TYPE 2 PEWS

(12.8) RELOCATED TYPE 3 PEWS

(12.9) RELOCATED TYPE 4 PEWS

(12.10) RELOCATED TYPE 5 PEWS

(12.11) MODIFIED TYPE 6 PEWS

23. HVAC

(23.1) HVAC GRILL AT STEP AND SIDE OF RAISED

SANCTUARY. SEE MECHANICAL

(23.2) HVAC RETURN GRILLES AT WAINSCOT. SEE

MECHANICAL

(23.3) HVAC RETURN GRILLES AT FLOOR. SEE

MECHANICAL

(23.4) HVAC SUPPLY GRILL. SEE MECHANICAL

26. ELECTRICAL

(26.1) EXIST. LIGHT FIXTURE TO REMAIN.

RELAMP, CLEAN-SEE FIXTURE SCHED.

(26.2) CEILING MTD. PENDANT FIXTURE

(26.3) 12" Ø CHANDELIER W/ UP & DN

LIGHTS

(26.4) TRACK LIGHTS, TYP.

(26.5) TRACK LIGHTS W/ MULTI-CIRCUITS,

TYP.

(26.6) UP LIGHT, TYP.

(26.7) AV / ELEC / ORGAN FLOOR BOX. SEE

AV AND ELECTRICAL

(26.8) SURFACE MTD. PENDANT FIXTURE

(26.9) ADD CIRCUITS TO EXIST. ELEC PANELS TO

ACCOMMODATE OUTLETS, LIGHT FIXTURES

AND ORGAN EQUIPMENT

ALTERNATE: REMOVE AND REPLACE

ELECTRICAL PANELS, BRANCH CIRCUITS AND

WIRING SERVING WORSHIP SPACE

(26.10) LIGHTING ON / OFF SWITCHES

(26.11) LIGHTING REMOTE CONTROLS

(26.12) LIGHTING MASTER CONTROLLER

(26.13) WIRELESS SENSORS AT TRUSSES, AS

REQUIRED FOR LIGHTING FIXTURES

SEE LIGHT FIXTURE SCHEDULE

DIMMING SCHEDULE: SEE SCHEDULE

BB = BASE BID (MULTISET)

BA = BASE ALTERNATE (LUTRON LCP128)

ORGAN INFRASTRUCTURE PACKAGE

(01) REINSTALL ACCESS STAIR IN BLOWER ROOM

AFTER ORGAN INSTALLATION

(02) INSTALL (1) 15" Ø & (1) 3" Ø PVC WIND LINE

FROM BLOWER TO REAR CENTER OF ORGAN

ABOVE REAR WALKWAY.

(03) COVER ALL BLOWER ROOM INTERIOR

SURFACES AND CEILING W/ ONE LAYER OF 5/8"

GWB. TAPE JOINTS & PAINT WHITE

(04) PAINT BLOWER ROOM FLOOR GRAY

(05) COVER ORGAN CHAMBER OPENINGS W 2

LAYERS OF 3/4" PLYWOOD FULLY GLUED AND

SCREWED W/ OVERLAPPING SEAMS. APPLY

COVERS BEHIND OPENINGS. STAIN EXPOSED

SURFACE. PLYWOOD SPECIES, VENEER CUT

AND STAIN TO MATCH EXISTING CHANCEL

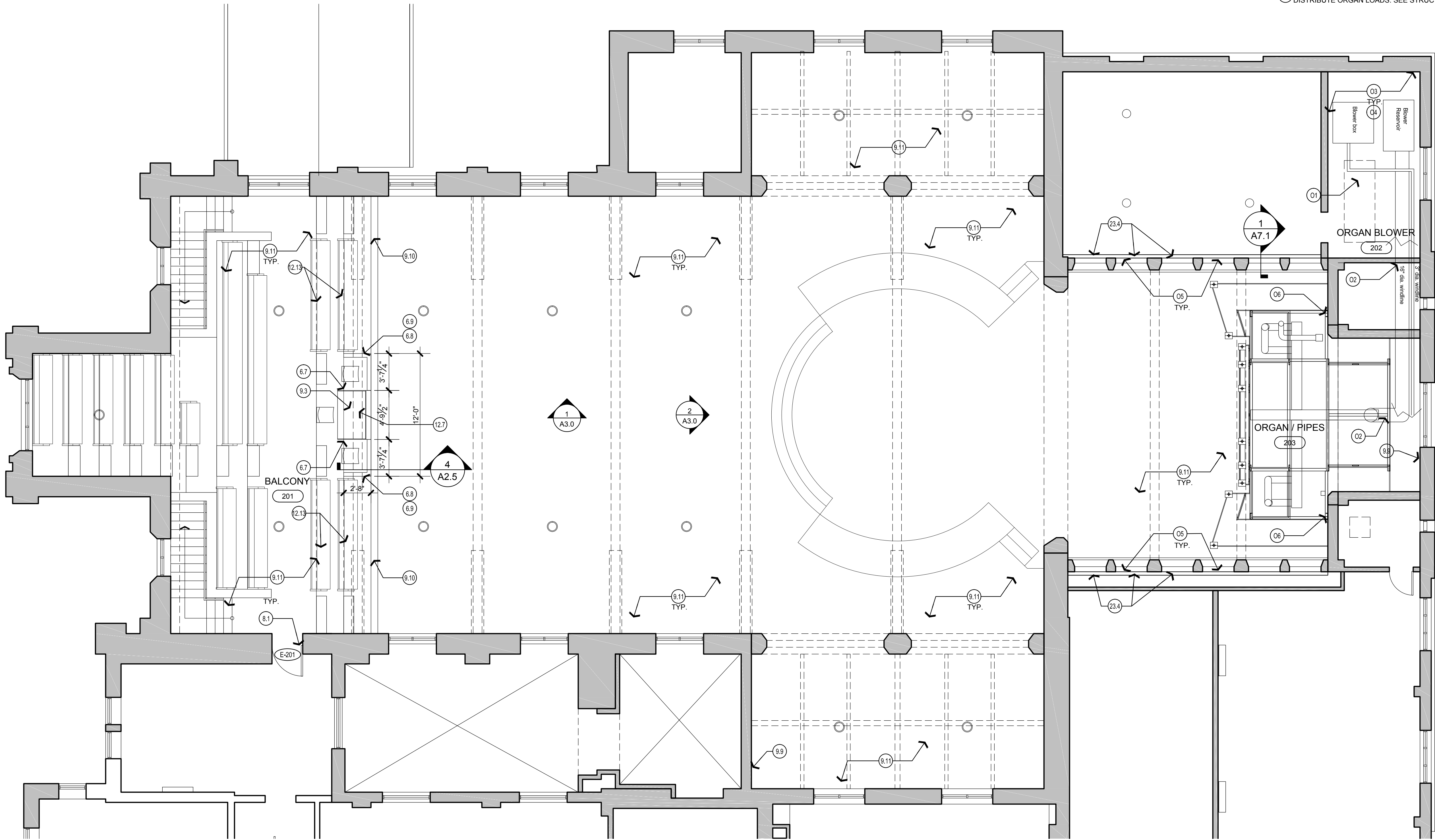
FINISHES

(06) STL. CHANNELS ATTACHED TO WALL TO

DISTRIBUTE ORGAN LOADS. SEE STRUCTURAL

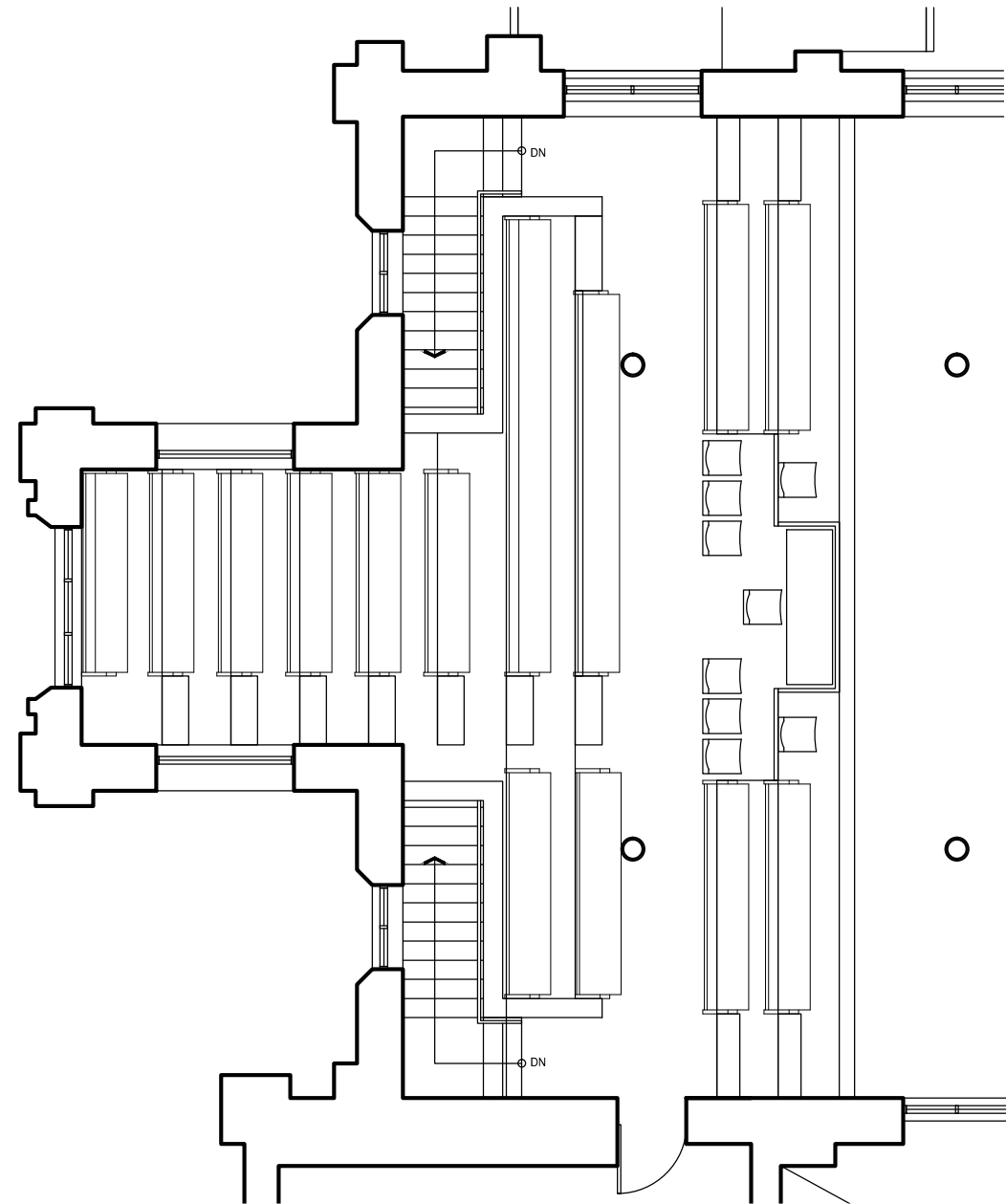
(07) LVL BEAMS ON CHANCEL CONC. FLOOR TO

DISTRIBUTE ORGAN LOADS. SEE STRUCTURAL



BALCONY LEVEL PLAN

Scale: 3/16"=1'-0"



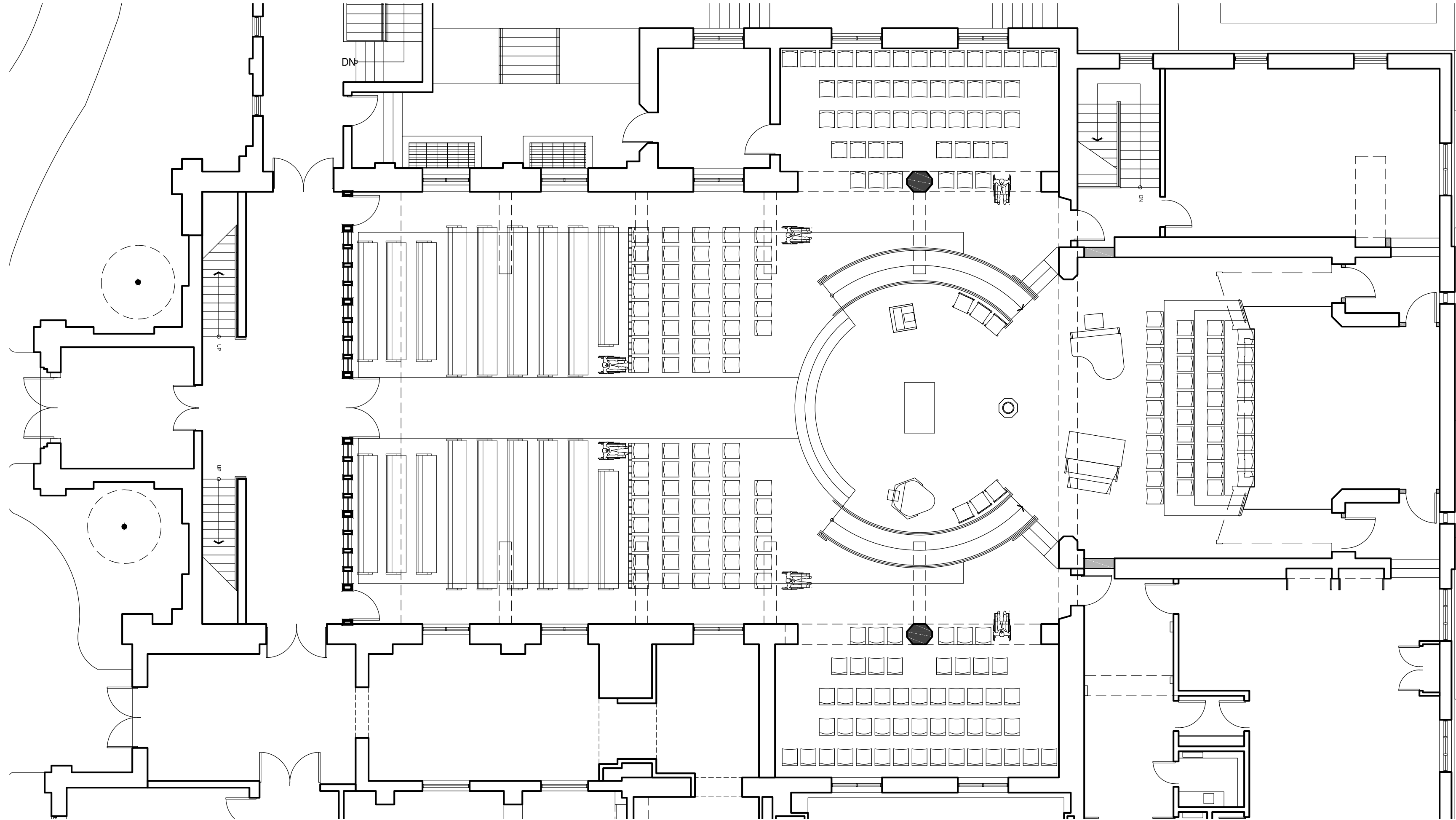
BAL. SEATING PLAN - OPTION B
Scale: 1/8"=1'-0"

BALCONY SEATING COUNT OPT. B

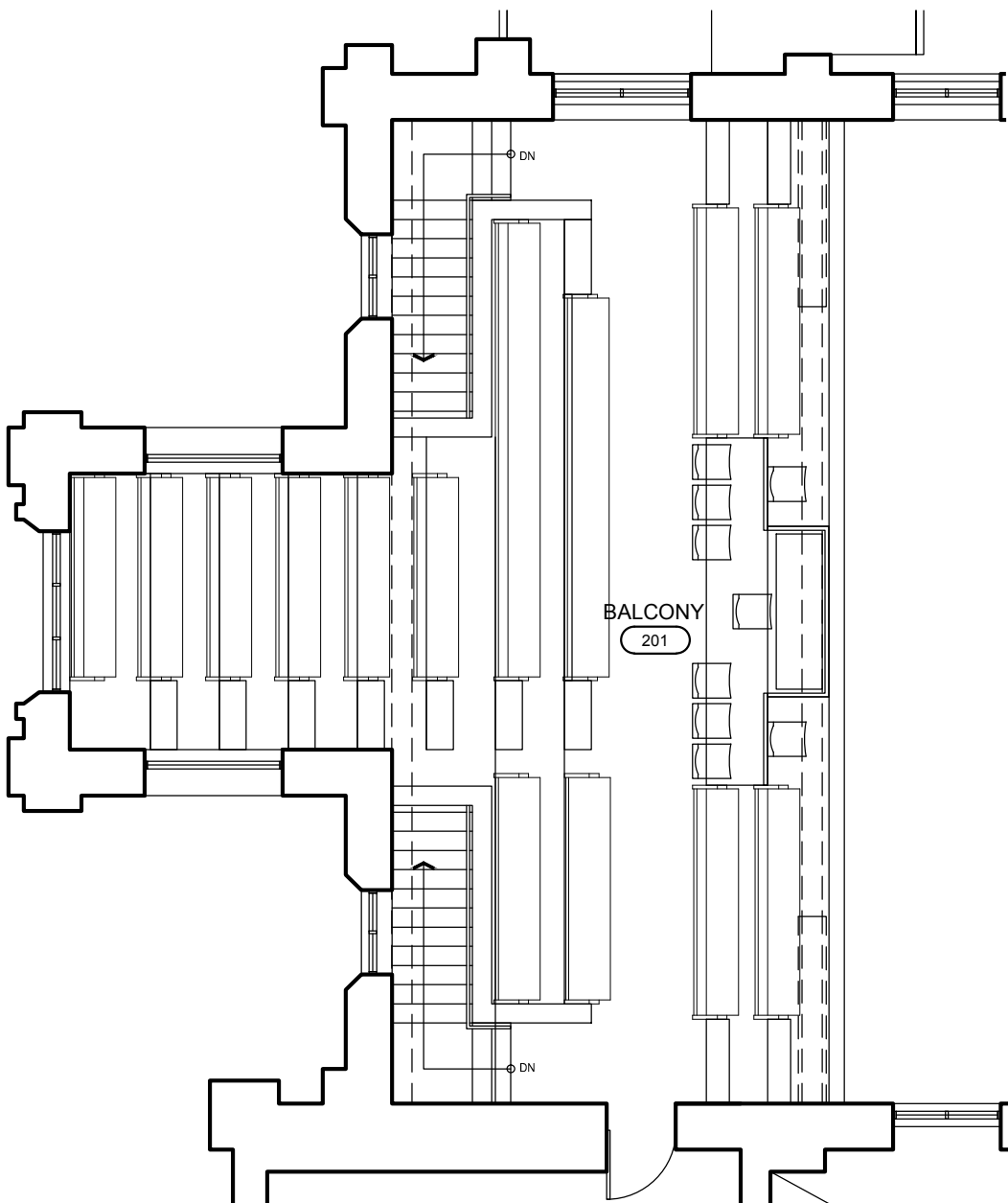
CHAIRS	8
HC	0
PEWS	
@ 18"	102
TOTAL	110
@ 21"	80
TOTAL	88

SANCTUARY SEATING COUNT OPT. B

CHAIRS	222
HC	8
PEWS	
@ 18"	140
TOTAL	370
@ 21"	112
TOTAL	342



CHURCH MAIN LEVEL SEATING PLAN - OPTION B
Scale: 1/8"=1'-0"



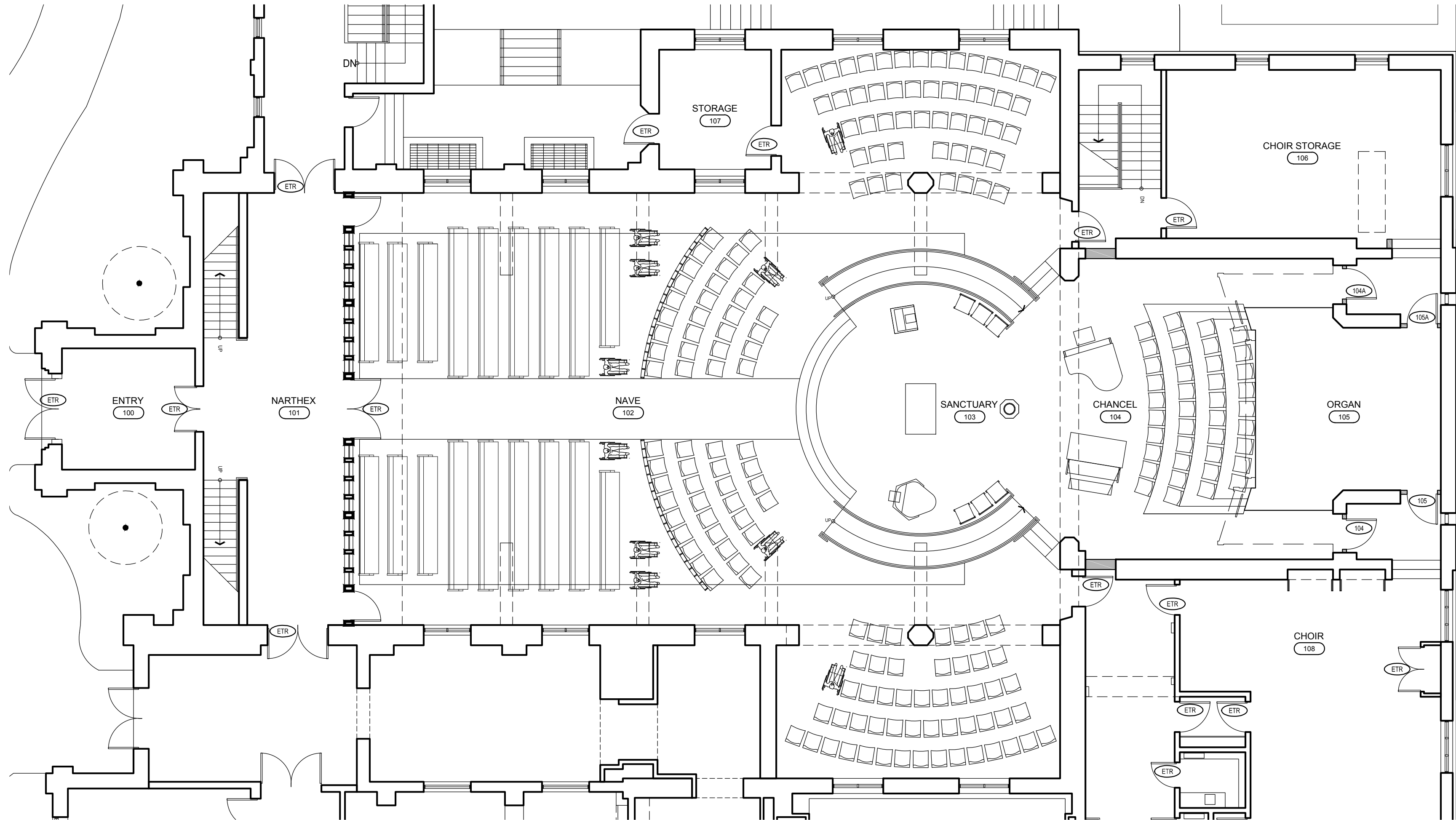
BAL. SEATING PLAN - OPTION A
Scale: 1/8"=1'-0"

BALCONY SEATING COUNT OPT. B

CHAIRS	8
HC	0
PEWS	
@ 18"	102
TOTAL	110
@ 21"	80
TOTAL	88

SANCTUARY SEATING COUNT OPT. A

CHAIRS	198
HC	10
PEWS	
@ 18"	164
TOTAL	372
@ 21"	128
TOTAL	336



CHURCH MAIN LEVEL SEATING PLAN - OPTION A
Scale: 1/8"=1'-0"



**FIRST
PRESBYTERIAN CHURCH
SANCTUARY RENOVATION**

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

100% DESIGN DEVELOPMENT SET 13 DEC 2013
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SEATING PLANS

DRAWING NO.

A2.2

KGA PROJECT NO. 1103.03



**FIRST
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SANCTUARY RENOVATION**

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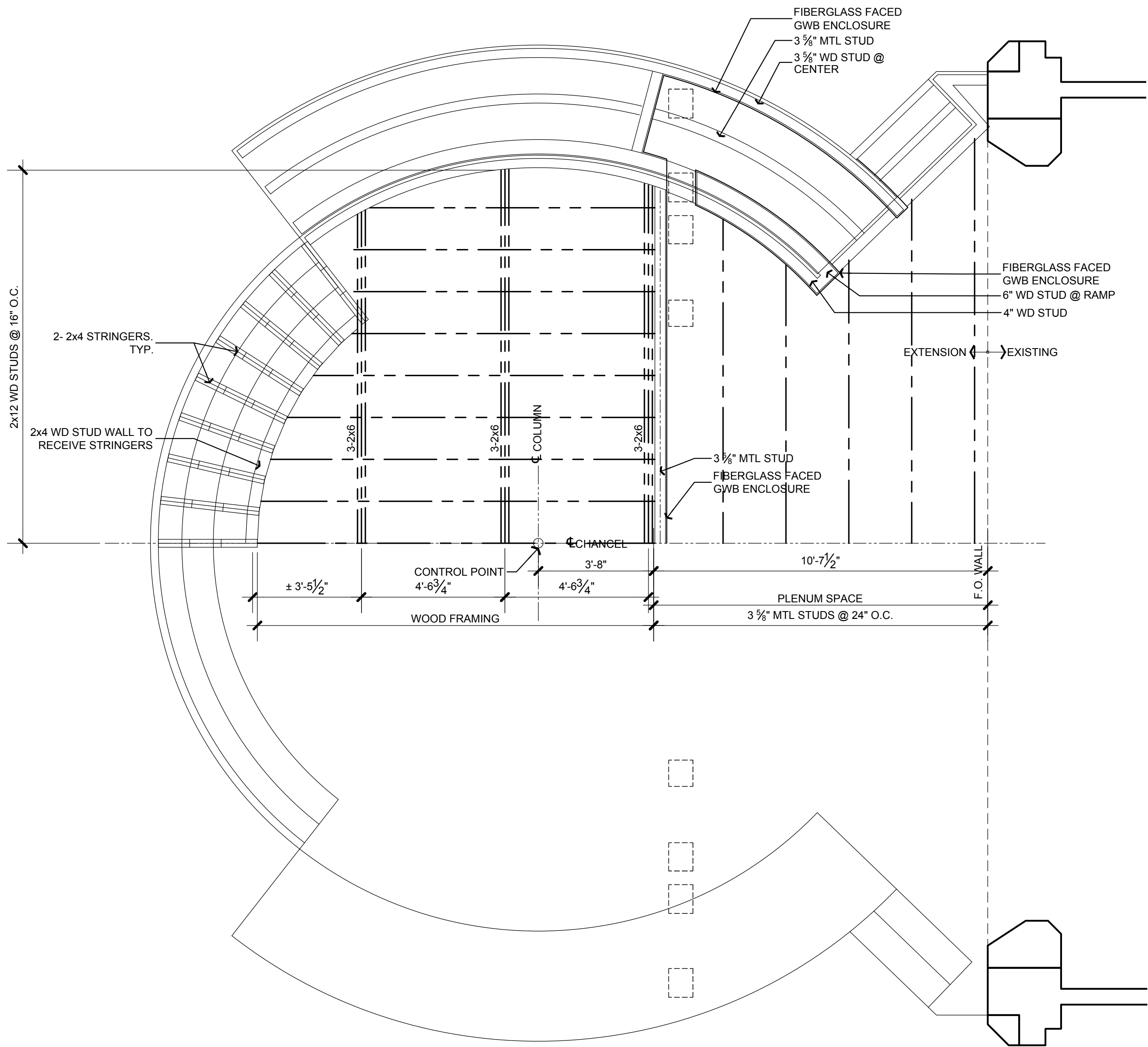
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ENLARGED FLOOR PLANS

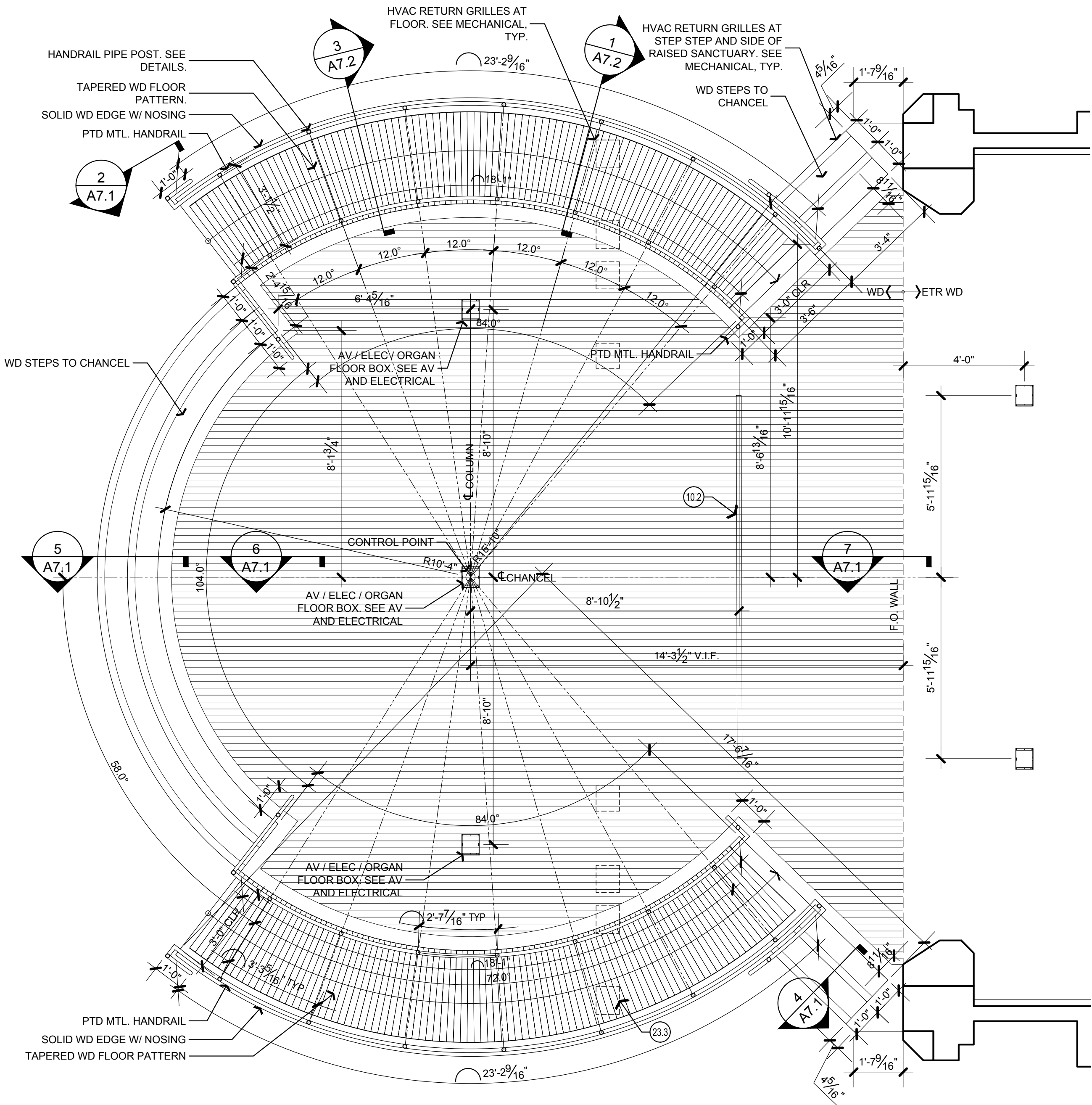
DRAWING NO.

A2.3

KGA PROJECT NO. 1103.03



SANCTUARY FLOOR FRAMING PLAN
Scale: 3/8"=1'-0"



SANCTUARY ENLARGED FLOOR PLAN
Scale: 3/8"=1'-0"



FIRST
PRESBYTERIAN CHURCH
SANCTUARY RENOVATION

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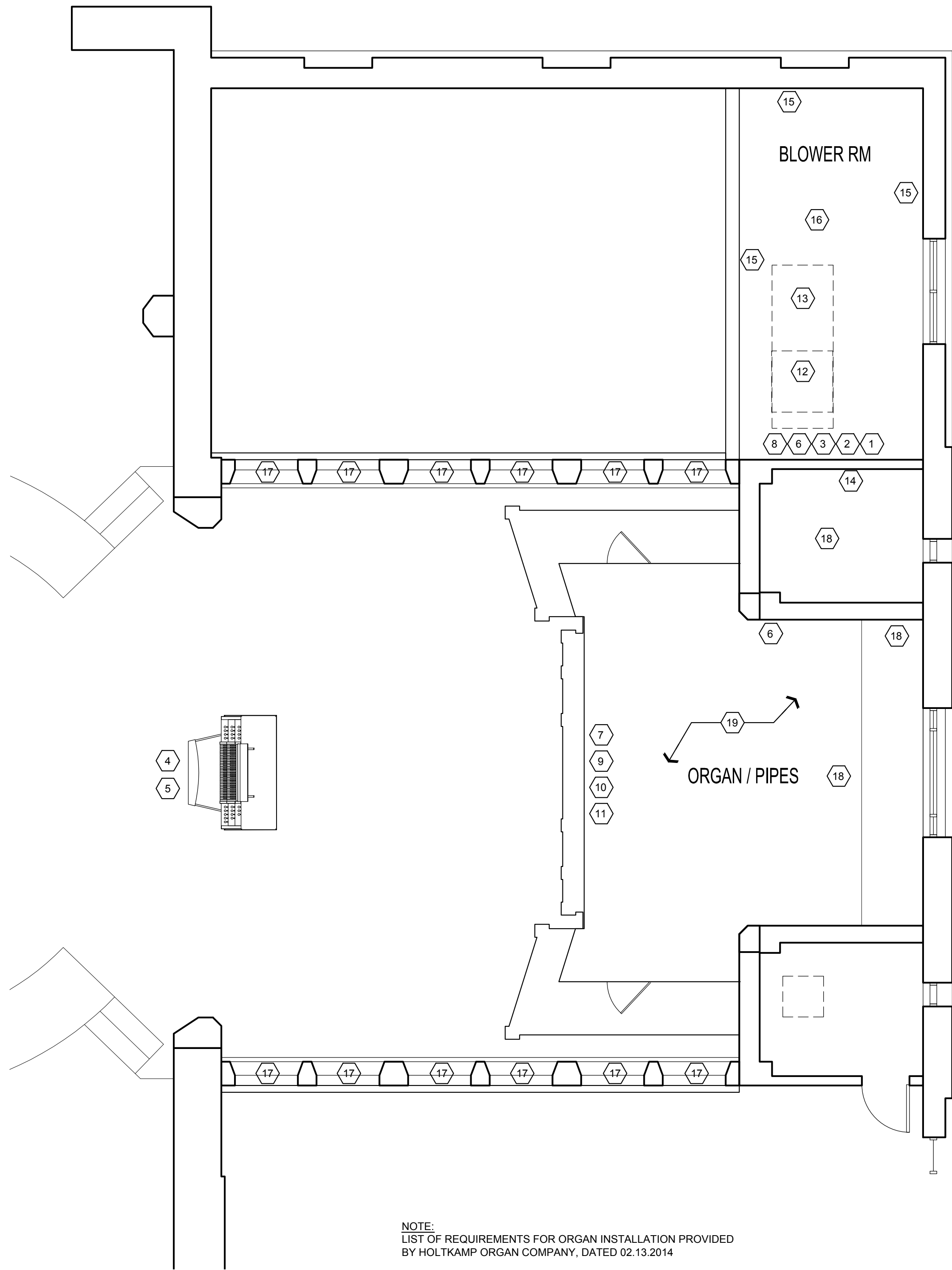
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ORGAN REQUIREMENTS

DRAWING NO.

A2.4

KGA PROJECT NO. 1103.03



1. THE CHANCEL ORGAN BLOWER WILL BE LOCATED IN THE BLOWER ROOM FOR THE EXISTING ORGAN. SAID LOCATION TO HOUSE PRIMARY ORGAN BREAKER PANEL, ORGAN BLOWER, AND STARTER RELAYS.
2. PROVIDE 220 VOLT CIRCUIT FOR BLOWER. EXACT POWER TO BE PROVIDED BY THE OWNER. CIRCUIT TO INCLUDE SUITABLE STARTER AND DISCONNECT SWITCH FOR 3 H.P. BLOWER MOTOR. BLOWER STARTER COIL TO BE SWITCHED BY "ICE CUBE" RELAY WITH 12 VDC COIL. ORGAN BUILDER WILL CONNECT 12 VDC ORGAN WIRING TO ICE CUBE RELAY COIL. OWNER TO CONNECT STARTER TO ICE CUBE RELAY COIL. STUB IN ALL CONDUIT NOW AND COMPLETE DURING INSTALLATION. PROVIDE MOTOR STARTERS AND WIRING FOR 2 SMALL BLOWERS IN THE ANTIPHONAL ORGAN.
3. PROVIDE 110-VOLT, 20 AMP DEDICATED SERVICE FOR ORGAN RECTIFIERS. RECTIFIERS TO BE LOCATED IN BASE OF ORGAN. SERVICE TO TERMINATE IN DUPLEX RECEPTACLE SWITCHED BY ICE CUBE RELAY WITH 12 VDC COIL REFERENCED IN #2. ORGAN BUILDER WILL CONNECT RECTIFIER TO ICE CUBE RELAY COIL. RECTIFIER WILL BE PROVIDED BY ORGAN BUILDER. STUB IN NOW AND COMPLETE DURING INSTALLATION.

NOTE: ITEMS 2 & 3 ARE ALWAYS USED TOGETHER. THEY ARE CONTROLLED BY A COMMON 12 VDC KEYED START/STOP SWITCH LOCATED ON CONSOLE AND PROVIDED BY ORGAN BUILDER. START/STOP SWITCH TO ACTIVATE RELAY FOR ITEMS 2 AND 3.
4. PROVIDE 110-VOLT, 20 AMP UN-SWITCHED SERVICE FOR ORGAN CONSOLE.
5. PROVIDE TWO PLUG IN LOCATIONS IN CHANCEL FLOOR FOR ORGAN CONSOLE DATA CABLE AND 110VAC SERVICE FOR ORGAN CONSOLE. PLUG IN LOCATIONS TO BE LOCATED IN RECESSED CANS. CANS TO BE CONNECTED BY TWO 1" CONDUITS. CONDUITS TO TERMINATE IN BLOWER ROOM. STUB IN 110 VAC AND COMPLETE DURING INSTALLATION. LEAVE PULL WIRES IN CONDUIT FOR ORGAN DATA CABLE.
6. PROVIDE ONE 1" CONDUIT FROM BLOWER ROOM TO BASE OF ORGAN FOR ORGAN CONTROL WIRING
7. PROVIDE TEN WORK LIGHTS INSIDE ORGAN CASE, WITH SWITCH AT ENTRANCE DOOR. LOCATIONS TO BE SPOTTED AT THE TIME OF ORGAN INSTALLATION BY ORGAN INSTALLATION CREW CHIEF. SOME LIGHTS WILL BE FLUORESCENT, AND OTHERS INCANDESCENT. STUB IN NOW AND COMPLETE DURING INSTALLATION.
8. PROVIDE TWO WORK LIGHTS INSIDE CHANCEL BLOWER ROOM. WITH SWITCH AT ENTRANCE DOOR. LOCATIONS TO BE SPOTTED AT THE TIME OF ORGAN INSTALLATION BY ORGAN INSTALLATION CREW CHIEF. SOME LIGHTS WILL BE FLUORESCENT, AND OTHERS INCANDESCENT. STUB IN NOW AND COMPLETE DURING INSTALLATION.
9. PROVIDE TEN UNSWITCHED CONVENIENCE OUTLETS INSIDE ORGAN SPACES. STUB IN NOW AND COMPLETE DURING INSTALLATION.

NOTE: ITEMS 7 - 9 ARE ON A SEPARATE CIRCUIT FROM ITEMS 2 AND 3.
10. PROVIDE CONDUIT AND WIRING FOR 6 LOW VOLUME EXHAUST FANS IN ORGAN CASE. FANS PROVIDED AND INSTALLED BY ORGAN BUILDER. FANS TO BE SILENT AND CONSTANTLY RUNNING. STUB IN NOW AND COMPLETE WIRING DURING INSTALLATION.
11. PROVIDE DISPLAY LIGHTING ON DIMMERS TO EVENLY LIGHT THE PIPE ORGAN FACADE.
NOTE: ORGAN BUILDER TO PROVIDE AND INSTALL CONSOLE SWITCH, BLOWER MOTOR, ACDC RECTIFIER, CONSOLE LIGHTS AND SWELL EXHAUST FAN. ALL AC ELECTRICAL WORK IS THE RESPONSIBILITY OF THE OWNER.
12. ENLARGE OPENING IN BLOWER ROOM FLOOR TO ALLOW FOR THE REMOVAL OF THE EXISTING BLOWER.
13. RE-INSTALL ACCESS STAIRS IN BLOWER ROOM AFTER ORGAN INSTALLATION.
14. INSTALL ONE 15" DIAMETER AND ONE 3" DIAMETER PVC WIND LINES FROM BLOWER ROOM TO BASE OF ORGAN CASE.
15. COVER ALL BLOWER ROOM INTERIOR WALL SURFACES AND CEILING WITH ONE LAYER 5/8" GYPSUM BOARD. TAPE ALL JOINTS. PAINT WHITE.P
16. PAINT BLOWER ROOM FLOOR GRAY.
17. COVER ALL ORGAN CHAMBER OPENINGS WITH TWO LAYERS OF 3/4" PLYWOOD, FULLY GLUED AND SCREWED. COVERS TO BE APPLIED TO THE INSIDE WALL OF EACH OPENING. OUTSIDE SURFACE OF COVERS TO BE FINISHED WITH A COLOR OR STAIN COMPATIBLE WITH CHANCEL FINISHES.
18. REMOVE EXISTING HVAC DUCTWORK AT REAR OF CHANCEL.
19. PROVIDE ADEQUATE HEATING, COOLING AND HUMIDITY CONTROL THROUGHOUT THE YEAR. TEMPERATURE TO BE HELD WITHIN A RANGE OF 65 - 80 DEGREES. HUMIDITY HUMIDITY TO BE HELD WITHIN A RANGE OF 20 - 80%.

ORGAN PREPARATION REQUIREMENTS

Scale: 1/4"=1'-0"



FIRST
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AV PLANS & DETAILS

DRAWING NO.

A2.5

KGA PROJECT NO. 1103.03

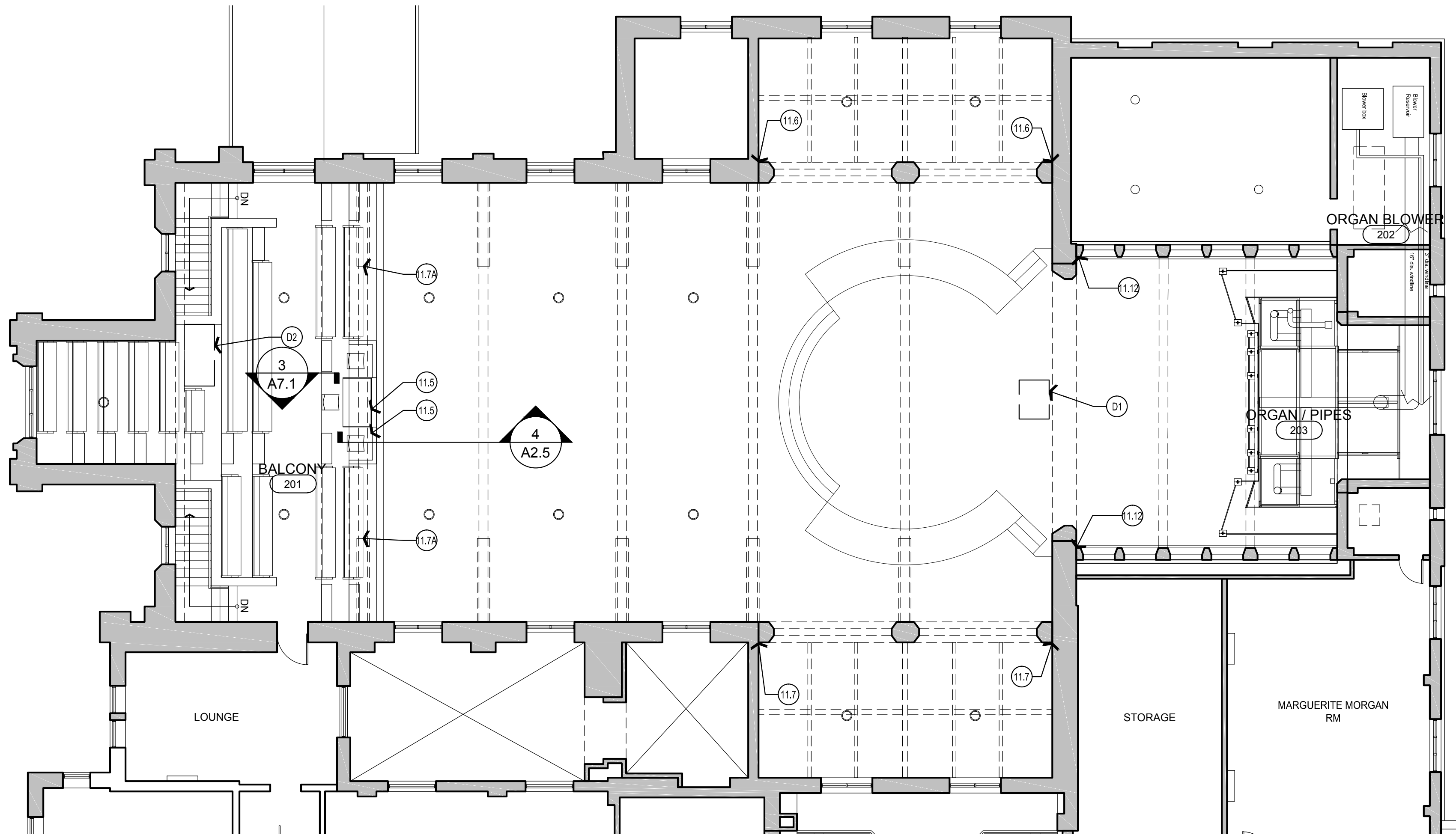
LEGEND

DEMOLITION NOTES:

- D1 REMOVE MAIN SPEAKER AND ASSOCIATED WIRING
D2 REMOVE AV CONTROL EQUIPMENT AND DESK. SALVAGE EQUIPMENT FOR RELOCATION

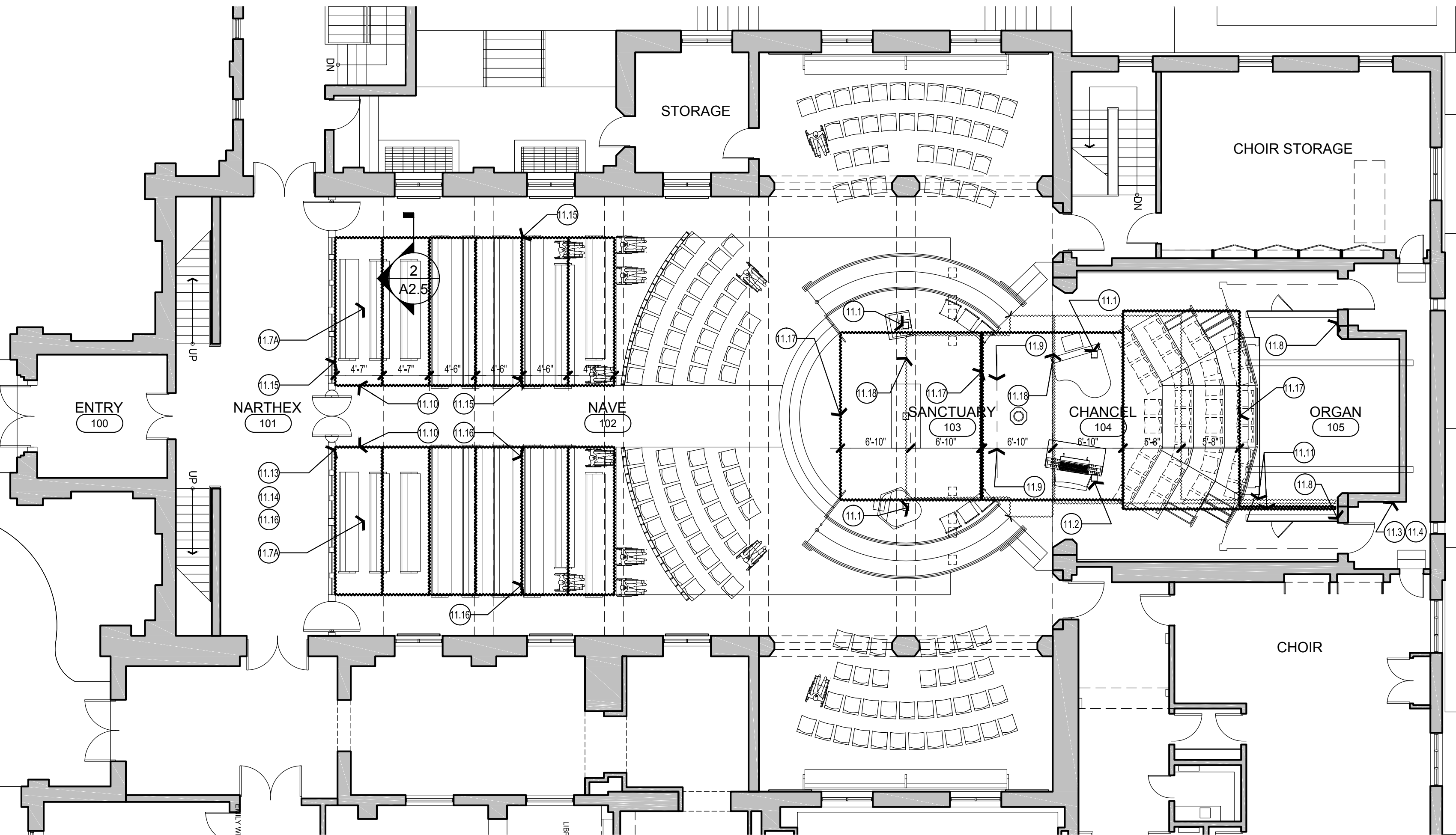
11. EQUIPMENT

- 11.1 AV ORGAN FLOOR BOX W/ DEDICATED 20A QUAD AC POWER OUTLET. FSR FL-540P (8" DEEP) OR EQUAL. INTERCONNECT ALL BOXES WITH (A) 1-1/2" CONDUIT FOR AV. AV CONDUIT TO HOME RUN TO AV CONTROL DESK IN BALCONY (11.5). PROVIDE CONDUIT FOR AC POWER AS REQUIRED.
- 11.2 AV ORGAN FLOOR BOX W/ DEDICATED 20A QUAD (8" DEEP) OR EQUAL. INTERCONNECT ALL BOXES WITH (1) 1-1/2" CONDUIT FOR AV, AND (1) 1-1/2" CONDUIT FOR ORGAN. AV CONDUIT TO HOME RUN TO AV CONTROL DESK IN BALCONY (11.5). ORGAN CONDUIT TO TERMINATE AS REQUIRED. PROVIDE CONDUIT FOR AC POWER AS REQUIRED.
- 11.3 AV WALL RACK LOCATION. PROVIDE 20A QUAD AC OUTLET AT 80" AFF AND (1) 1-1/2" CONDUIT TO AV CONTROL DESK IN BALCONY (11.5)
- 11.4 FUTURE WALL SWITCH LOCATION FOR PROJECTION SCREEN, PROVIDE 1-GANG JUNCTION BOX AT 48" AFF WITH 3/4" CONDUIT TO FUTURE PROJECTION SCREEN LOCATION (11.9).
- 11.5 RELOCATED AV CONTROL DESK LOCATION. EXTEND ALL AV CABLING FROM EXIST. LOCATION. PROVIDE (2) DEDICATED 20A AND AC OUTLETS.
- 11.6 WALL MTD. SPEAKER BOX AT APPROX. 8" AFF. INTERCONNECT BOTH LOCATIONS WITH 3/4" CONDUIT AND HOME RUN BACK TO AV WALL RACK BEHIND CHANCEL (11.3).
- 11.7 WALL MTD. SPEAKER BOX AT APPROX. 8" AFF. INTERCONNECT BOTH LOCATIONS WITH 3/4" CONDUIT AND HOME RUN BACK TO AV WALL RACK BEHIND CHANCEL (11.3).
- 11.7A EXISTING SPEAKERS TO REMAIN. TERMINATE CONDUITS UNDER DESK. INSTALL ACCESS PANEL
- 11.8 SPEAKER LOCATION. PROVIDE 3/4" CONDUIT TO AV CONTROL DESK IN BALCONY (11.5).
- 11.9 FUTURE FLOOR MTD. PROJECTION SCREEN (BID ALT.) PROVIDE HARD WIRED AC POWER AND 3/4" CONDUIT TO WALL SWITCH LOCATION (11.4).
- 11.10 INDUCTION LOOP WIRING IN FLOOR. WIRING TO HOME RUN TO AV CONTROL DESK IN BALCONY (11.5). PROVIDE 3/4" PLASTIC CONDUIT FROM CONTROL DESK TO START OF LOOP AREA.
- 11.11 INDUCTION LOOP WIRING IN FLOOR. WIRING TO HOME RUN TO AV WALL RACK BEHIND CHANCEL (11.3). PROVIDE 3/4" PLASTIC CONDUIT FROM WALL RACK TO START OF LOOP AREA.
- 11.12 WALL MTD. SPEAKER BOX AT APPROX. 8" AFF. INTERCONNECT BOTH LOCATIONS WITH 3/4" CONDUIT AND HOME RUN BACK TO AV WALL RACK BEHIND CHANCEL (11.3).
- 11.13 MAGNETIC INDUCTION LOOP WIRE SHALL BE TAPED INTO PLACE BEFORE PERMANENT INSTALLATION AND TESTED TO ACCOUNT FOR METAL OR EMF ANOMALIES. A MAGNETIC INDUCTION FIELD STRENGTH METER SHALL BE USED TO WALK THE ROOM WHILE TEST TONES OF 200Hz, 500Hz, 1KHz AND 2KHz ARE INJECTED INTO LOOP SYSTEM. NO DEVIATION IN ANY FREQUENCY SHALL BE GREATER THAN +1-3dB IN ANY FREQUENCY TO MILLER BEAM AND PAGANELLI (MBP) BEFORE INSTALLATION. NO PORTION OF THE MAGNETIC LOOP WIRE SHALL BE EXPOSED AND/OR VISIBLE. INSTALLATION OF LOOP WIRE SHALL BE BELOW CARPET AND/OR TILE AND AFFIXED WITH WILLIAMS SOUND LOOP TAPE. VERIFY INSTALLATION PROCEDURE AND LOCATIONS WITH MBP BEFORE MTD.
- 11.14 LOOP RUN FROM AMPLIFIER TO ROOM SHALL BE TWISTED COPPER PAIR UNTIL IT IS BROKEN OUT INTO TWO SEPARATE SINGLE STRANDED LINES. CABLE RUN FROM LOOP AMPLIFIER TO LOOP START SHOULD BE <=100'. MEASURED RESISTANCE PER LOOP CHANNEL AND AT AMPLIFIER SHOULD NOT EXCEED 1.5 Ohm.
- 11.15 MAGNETIC INDUCTION LOOP WIRE CHANNEL 1 (EST. 250', 14awg)
- 11.16 MAGNETIC INDUCTION LOOP WIRE CHANNEL 2 (EST. 250', 14awg)
- 11.17 MAGNETIC INDUCTION LOOP WIRE CHANNEL 1 UNDER WD FLOOR (EST. 210', 14awg)
- 11.18 MAGNETIC INDUCTION LOOP WIRE CHANNEL 2 UNDER WD FLOOR (EST. 205', 14awg)



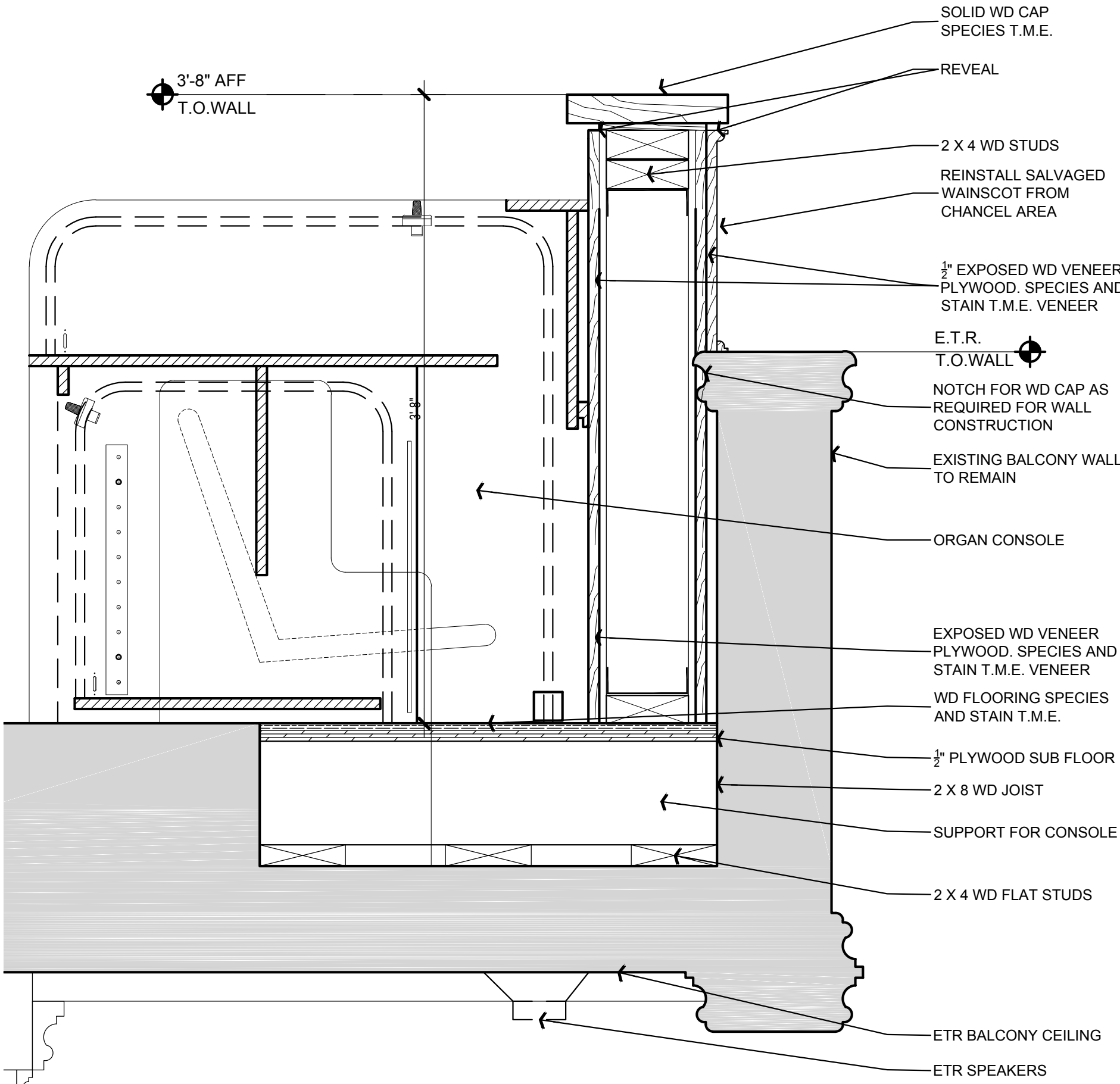
BALCONY LEVEL AV PLAN

Scale: 1/8"=1'-0"



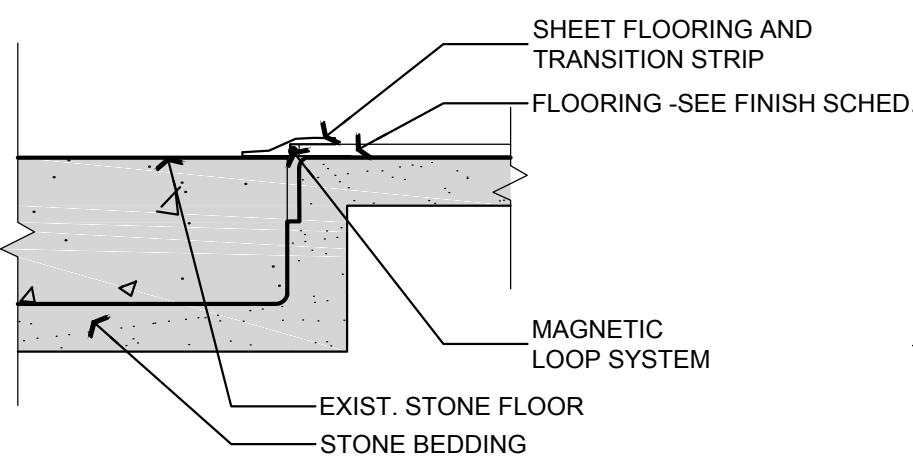
CHURCH MAIN LEVEL AV PLAN

Scale: 1/8"=1'-0"



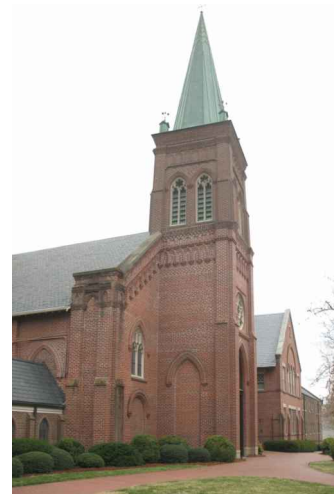
BALCONY CONSOLE SECTION

Scale: 1-1/2"=1'-0"



TRANSITION FLOOR DETAIL

Scale: 6"=1'-0"



**FIRST
PRESBYTERIAN CHURCH
SANCTUARY RENOVATION**

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

100% DESIGN DEVELOPMENT SET	13 DEC 2013
FOR BID / PERMIT	6 MAR 2014
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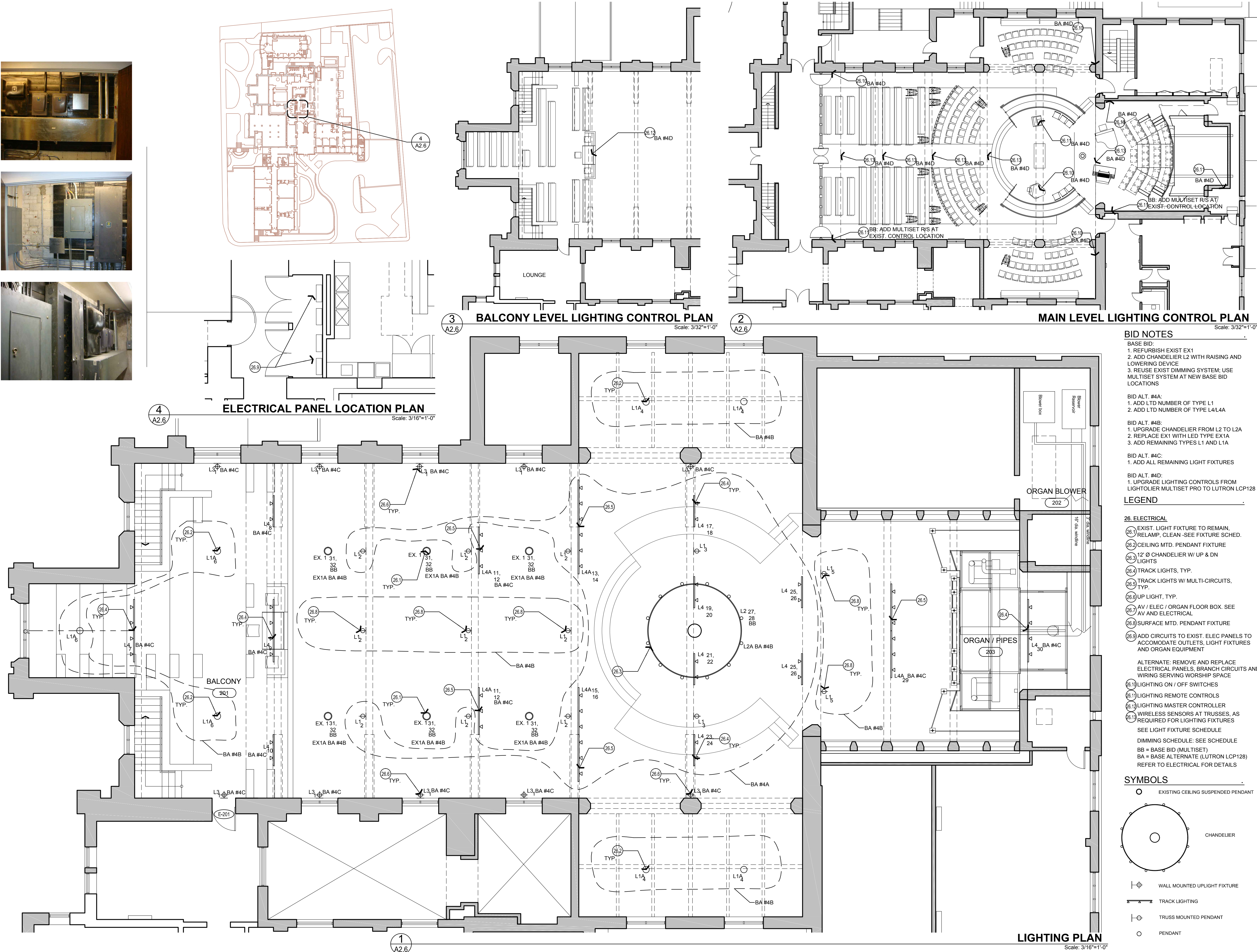
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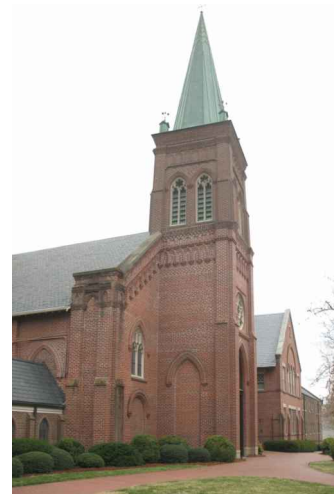
LIGHTING PLANS

DRAWING NO.

A2.6

KGA PROJECT NO. 1103.03





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SECTIONS AND ELEVATIONS

DRAWING NO.

A3.0

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LEGEND

5. METALS

(5.1) PTD MTL. HANDRAIL

ALTERNATE: BRONZE HAND RAILS

6. WOOD, PLASTICS, AND COMPOSITES

(6.1) WD CHANCEL EXTENSION

(6.2) WD STEPS TO CHANCEL

(6.3) HC WD RAMP

(6.4) DEMOUNTABLE ELEVATED CHOIR

(6.5) ORGAN WAINSCOT PANELING BY

ORGAN MANUF.

(6.6) INSPECT WAINSCOT BEHIND THE REMOVED

CHOIR PLATFORM TO VERIFY CONTINUITY OF

WAINSCOT CONFIGURATION. RECONFIGURE AS

NECESSARY TO MATCH EXISTING

(6.7) WD FLOOR EXTENSION FOR AV CONTROL

CONSOLE

(6.8) WD VENEER ON WD STUDS WALL ENCLOSURE

FOR AV CONTROL. PLYWOOD SPECIES,

VENEER CUT AND STAIN TO MATCH EXISTING

FINISHES

(6.9) REINSTALL SALVAGED WAINSCOT FROM

ALTAR AT THE EXTERIOR FACE OF AV

CONTROL WALL ENCLOSURE. REFINISH TO

MATCH EXISTING FINISHES

8. DOORS & WINDOWS

(8.1) REINSTALL EXISTING DOOR TO SWING IN THE

OPPOSITE DIRECTION. REUSE HINGES. PROVIDE NEW

JAMB AS REQUIRED. WD SPECIES AND FINISH TO

MATCH EXISTING. MODIFY TRESHOLD AS REQUIRED

(8.2) REPLACE WD DOOR. INCREASE WIDTH TO THE

ADJACENT WAINSCOT PANEL. VERIFY DIMENSIONS

IN FIELD. SALVAGE WAINSCOT FROM EXISTING

DOOR AND REINSTALL ON NEW DOOR.

9. FINISHES

(9.1) REFINISH EXIST WD FLOORING

(9.2) STRIP, CLEAN AND REFINISH STONE FLOOR

(9.3) WD FLOORING. SPECIES AND FINISH T.M.E.

(9.4) LINOLEUM FLOOR ON TOP OF EXIST

FLOORING

(9.5) REFINISH WAINSCOT

(9.6) REFINISH DOORS

(9.7) REFINISH WD & GLASS PARTITION AND DOORS

ASSOCIATED

(9.8) CLEAN CEMENTITIOUS PLASTER AND STONE

TRIM AT WALLS

ALTERNATE: RESEAL CEMENTITIOUS PLASTER WITH

OPAQUE STAIN TO ESTABLISH CONSISTENT APPEARANCE

(9.9) REPAIR DAMAGED AREAS OF CEMENTITIOUS

PLASTER AT WALLS AND AROUND AIR GRILLES

(9.10) REFINISH BALCONY FRONT GUAR RAIL AND WD

CEILING UNDER BALCONY

(9.11) ALTERNATE: REPAIR, CLEAN AND REFINISH WOOD

AT CEILING AT WORSHIP SPACE, INCLUDING

VENEER TRUSSES, PURLINS, SPACERS, BRACKETS,

DECK AND ALL OTHER WOOD TRIM

10. SPECIALTIES

(10.1) DEMOUNTABLE WD SCREEN WALL.

ALTERNATE

(10.2) FUTURE FLOOR RISING PROJECTION SCREEN.

PROVIDE AV / ELEC CONNECTION AND

COVERED FLOOR OPENING FOR FUTURE

INSTALLATION

12. FURNISHINGS

(12.3) LITURGICAL FURNITURE, N.I.C.

(12.4) SEATING, N.I.C.

(12.5) RELOCATED PIANO

(12.6) ORGAN CONSOLE

(12.7) AV ROLLTOP CONTROL DESK. ALTERNATE

(12.8) RELOCATED TYPE 1 PEWS

(12.9) RELOCATED TYPE 2 PEWS

(12.10) RELOCATED TYPE 3 PEWS

(12.11) RELOCATED TYPE 4 PEWS

(12.12) RELOCATED TYPE 5 PEWS

(12.13) MODIFIED TYPE 6 PEWS

23. HVAC

(23.1) HVAC GRILL AT STEP AND SIDE OF RAISED

SANCTUARY. SEE MECHANICAL

(23.2) HVAC RETURN GRILLES AT WAINSCOT. SEE

MECHANICAL

(23.3) HVAC RETURN GRILLES AT FLOOR. SEE

MECHANICAL

(23.4) HVAC SUPPLY GRILL. SEE MECHANICAL

26. ELECTRICAL

(26.1) EXIST. LIGHT FIXTURE TO REMAIN,

RELAMP, CLEAN - SEE FIXTURE SCHED.

(26.2) CEILING MTD. PENDANT FIXTURE

(26.3) 12" Ø CHANDELIER W/ UP & DN

LIGHTS

(26.4) TRACK LIGHTS, TYP.

(26.5) TRACK LIGHTS W/ MULTI-CIRCUITS,

TYP.

(26.6) UP LIGHT, TYP.

(26.7) AV / ELEC / ORGAN FLOOR BOX. SEE

AV AND ELECTRICAL

(26.8) SURFACE MTD. PENDANT FIXTURE

(26.9) ADD CIRCUITS TO EXIST. ELEC PANELS TO

ACCOMMODATE OUTLETS, LIGHT FIXTURES

AND ORGAN EQUIPMENT

ALTERNATE: REMOVE AND REPLACE

ELECTRICAL PANELS, BRANCH CIRCUITS AND

WIRING SERVING WORSHIP SPACE

(26.10) LIGHTING ON / OFF SWITCHES

(26.11) LIGHTING REMOTE CONTROLS

(26.12) LIGHTING MASTER CONTROLLER

(26.13) WIRELESS SENSORS AT TRUSSES, AS

REQUIRED FOR LIGHTING FIXTURES

SEE LIGHT FIXTURE SCHEDULE

DIMMING SCHEDULE: SEE SCHEDULE

BB = BASE BID (MULTISET)

BA = BASE ALTERNATE (LUTRON LCP128)

ORGAN INFRASTRUCTURE PACKAGE

(01) REINSTALL ACCESS STAIR IN BLOWER ROOM

AFTER ORGAN INSTALLATION

(02) INSTALL (1) 15" Ø & (1) 3" Ø PVC WIND LINE

FROM BLOWER TO REAR CENTER OF ORGAN

ABOVE REAR WALKWAY.

(03) COVER ALL BLOWER ROOM INTERIOR

SURFACES AND CEILING W/ ONE LAYER OF 3/8"

GW.B. TAPE JOINTS & PAINT WHITE

(04) PAINT BLOWER ROOM FLOOR GRAY

(05) COVER ORGAN CHAMBER OPENINGS W 2

LAYERS OF 3/4" PLYWOOD FULLY GLUED AND

SCREWED W/ OVERLAPPING SEAMS. APPLY

COVERS BEHIND OPENINGS. STAIN EXPOSED

SURFACE. PLYWOOD SPECIES, VENEER CUT

AND STAIN TO MATCH EXISTING CHANCEL

FINISHES

(06) STL CHANNELS ATTACHED TO WALL TO

DISTRIBUTE ORGAN LOADS. SEE STRUCTURAL

LVL BEAMS ON CHANCEL CONC. FLOOR TO

DISTRIBUTE ORGAN LOADS. SEE STRUCTURAL

ELEVATION - EAST

Scale: 3/16"=1'-0"

SECTION - NORTH

Scale: 3/16"=1'-0"



FIRST
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PERMIT PACKAGES 14 MAR 2014

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SCHEDULES

DRAWING NO.

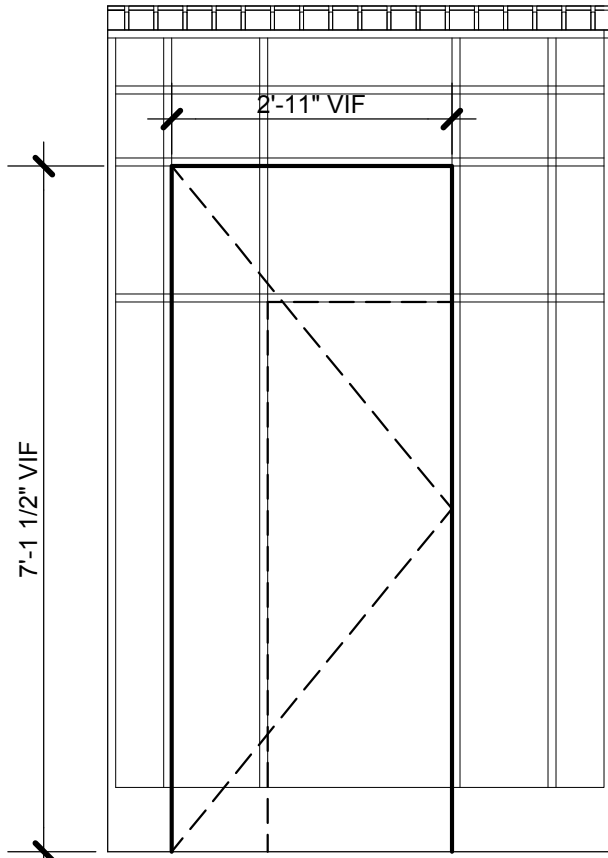
A7.0

KGA PROJECT NO. 1103.03

FINISH SCHEDULE											
				WALLS					CEILING		
RM No.	ROOM NAME	FLOOR	BASE	NORTH	SOUTH	EAST	WEST	ALL	MATL	HEIGHT*	REMARKS
100	ENTRY	ETR	ETR	-	-	-	-	ETR	ETR	ETR	-
101	NARTHEX	ETR	ETR	-	-	REFINISH WD/ REFINISH GLASS	-	-	ETR	ETR	-
102	NAVE	ETR STONE/LIN	ETR	-	-	-	-	ETR	ETR	ETR	NOTE 1, NOTE 3
103	SANCTUARY	WD T.M.E.	-	WD WAINSCOT/ NOTE 1	-	-	-	NOTE 1	ETR	ETR	NOTE 3
104	CHANCEL	ETR WD/ WD T.M.E.	ETR	-	-	-	WD WAINSCOT	-	ETR	ETR	NOTE 2
105	ORGAN	-	-	-	-	-	-	-	ETR	ETR	PER ORGAN MANUFACTURER
106	CHOIR STORAGE	ETR	ETR	-	-	-	-	ETR	ETR	ETR	NOT IN SCOPE
107	STORAGE	ETR	ETR	-	-	-	-	ETR	ETR	ETR	NOT IN SCOPE
108	CHOIR	ETR	ETR	-	-	-	-	ETR	ETR	ETR	NOT IN SCOPE
201	BALCONY	ETR/WD T.M.E. ON AV CONTROL AREA	ETR	-	-	-	-	ETR	ETR	ETR	FLOOR EXTENSION WD SPECIES AND STN TME
202	ORGAN BLOWER	ETR	ETR	-	-	-	-	PTD.GWB	ETR	ETR	PTD FLOOR GRAY FOR ORGAN PREPARATION REQUIREMENTS
203	ORGAN/PIPES	-	-	-	-	-	-	-	-	-	PER ORGAN MANUFACTURER
NOTES:											
1. REFINISH STONE FLOORS. INSTALL LINOLEUM AT AREAS INDICATED. CLEAN CEMENTITIOUS PLASTER AND STONE AT WALLS. PATCH AND REPAIR DAMAGED AREAS AS REQUIRED.											
2. REFINISH ETR WAINSCOT											
3. CEILING TO BE CLEANED, REFINISHED AS BID ALT											

3
A7.0

FINISH SCHEDULE
Scale: NTS



DOOR 104-A
SOLID CORE
WD DOOR W/ WAINSCOT
APPLIED, OPPOSITE DOOR 104,
OPP HAND.

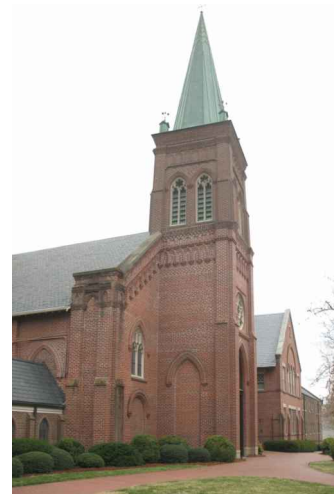
2
A7.0

DOOR TYPES
Scale: 1/2"=1'-0"

DOOR SCHEDULE															
		DOOR						FRAME							
DOOR No.	ROOM NAME	TYPE	SIZE	THICKNESS	MATERIAL	FINISH	GLASS	MAT'L/TYPE	FINISH	HEAD DTL	JAMB DTL	SILL DTL	RATING	HARDWARE	REMARKS
104	CHANCEL	A	3'-0" X 7'-2" VIF	1 3/4"	SCWD	STAIN", T.M.E.	-	WD	STAIN	-	-	-	-	1	SEE DETAIL 8 & 9 / A7.1
104A	CHANCEL	A	3'-0" X 7'-2" VIF	1 3/4"	SCWD	STAIN", T.M.E.	-	WD	STAIN	-	-	-	-	1	SEE DETAIL 8 & 9 / A7.1
E-201	BALCONY	ETR	ETR	ETR	ETR	ETR	ETR	ETR	STAIN	-	-	-	-	-	SWING OPPOSITE DIRECTION SEE NOTE 8.1 IN A2.1

1
A7.0

DOOR SCHEDULE
Scale: NTS



FIRST PRESBYTERIAN CHURCH SANCTUARY RENOVATION

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

100% DESIGN DEVELOPMENT SET	13 DEC 2013
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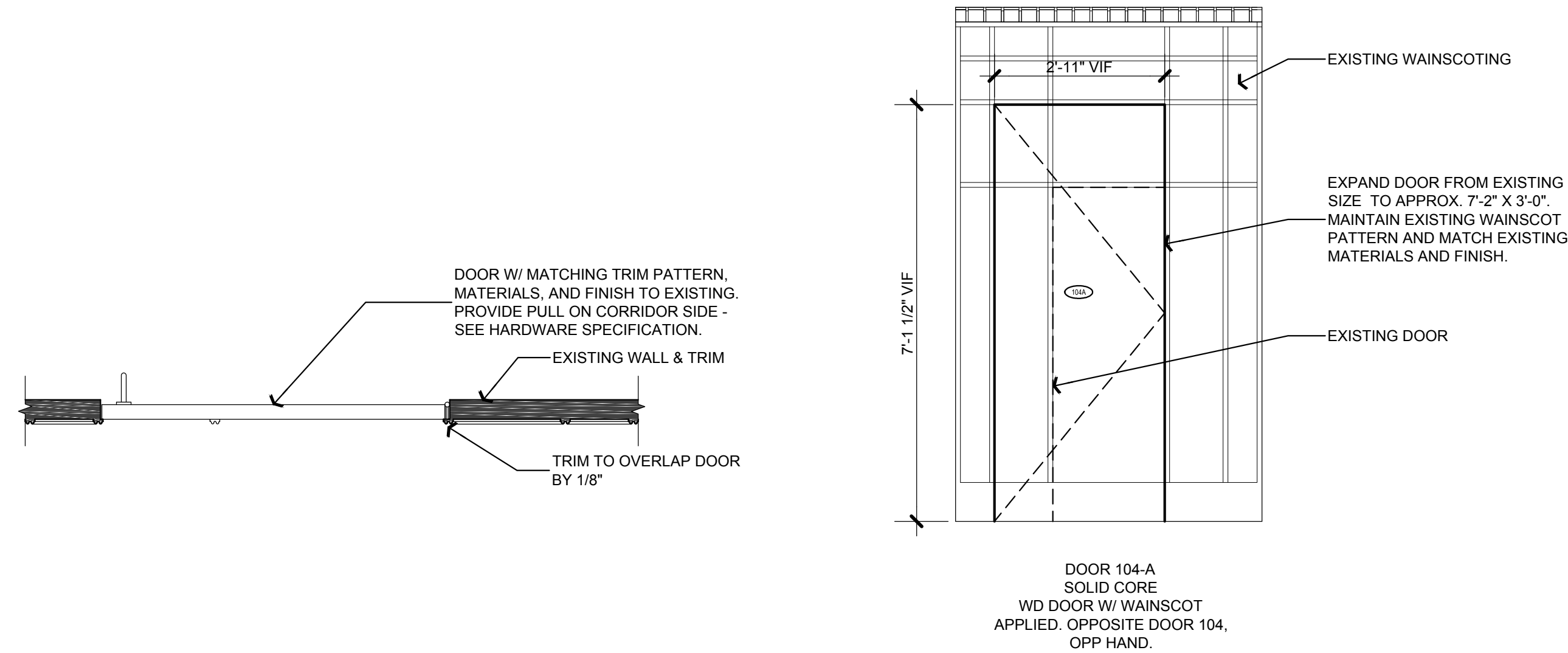
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DETAILS

DRAWING NO.

A7.1

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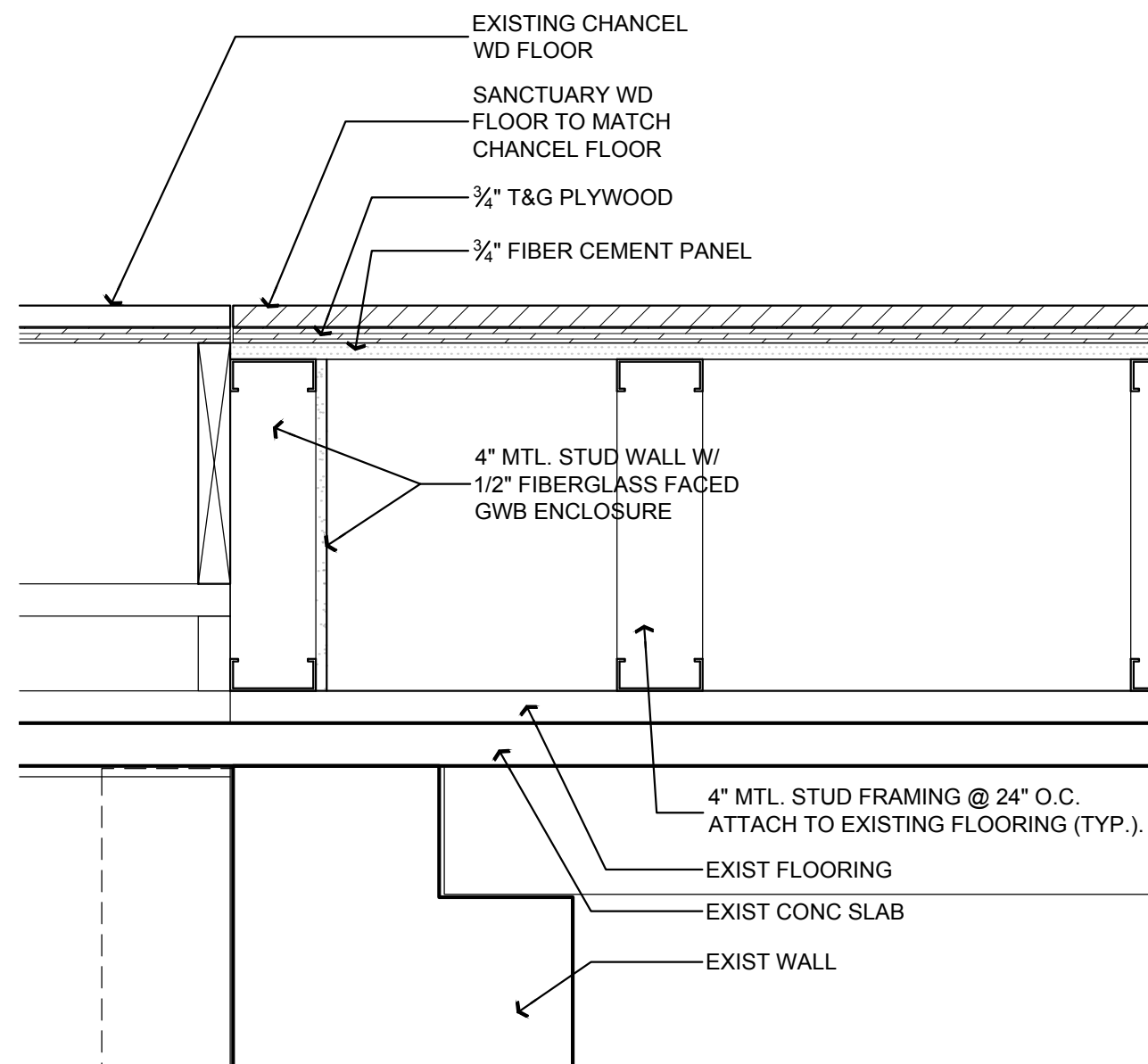


DETAIL AT DOOR 104A

Scale: 1"=1'-0"

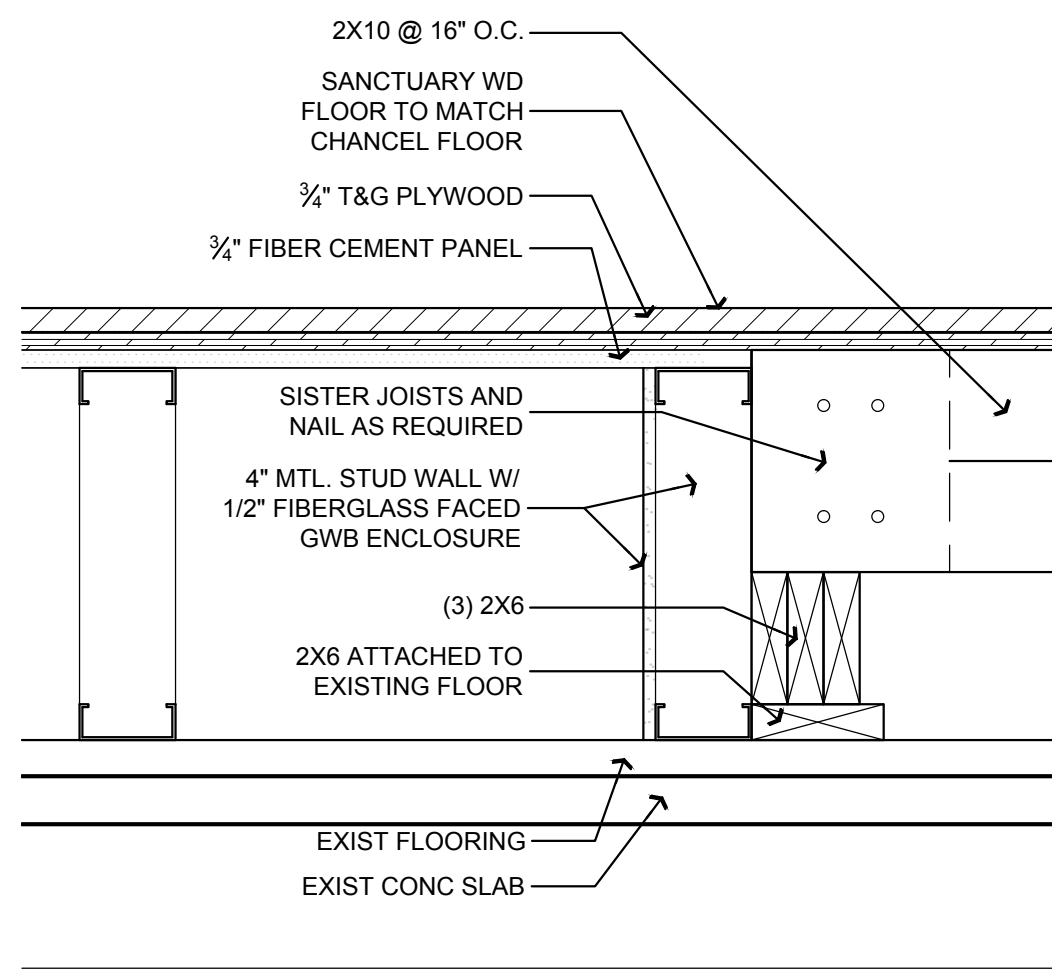
ELEVATION AT DOOR 104A

Scale: 1/2"=1'-0"



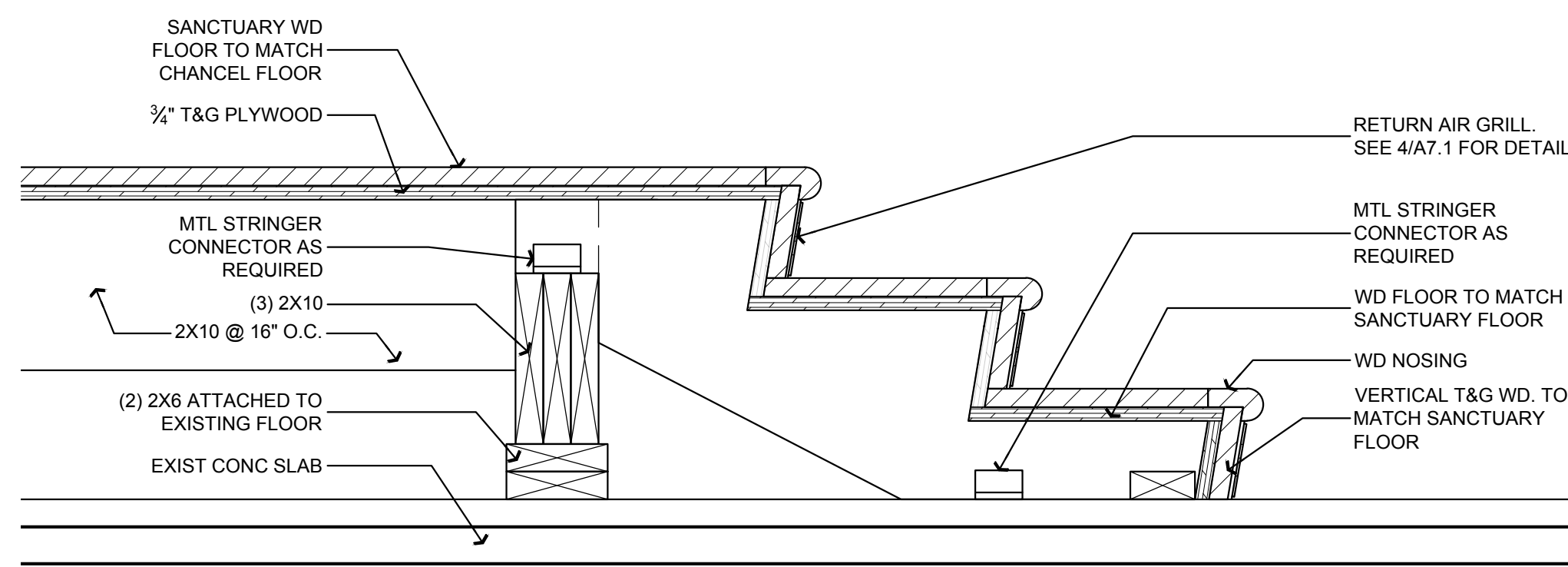
RAISED SANCTUARY AT EXIST. CHANCEL

Scale: 1 1/2"=1'-0"



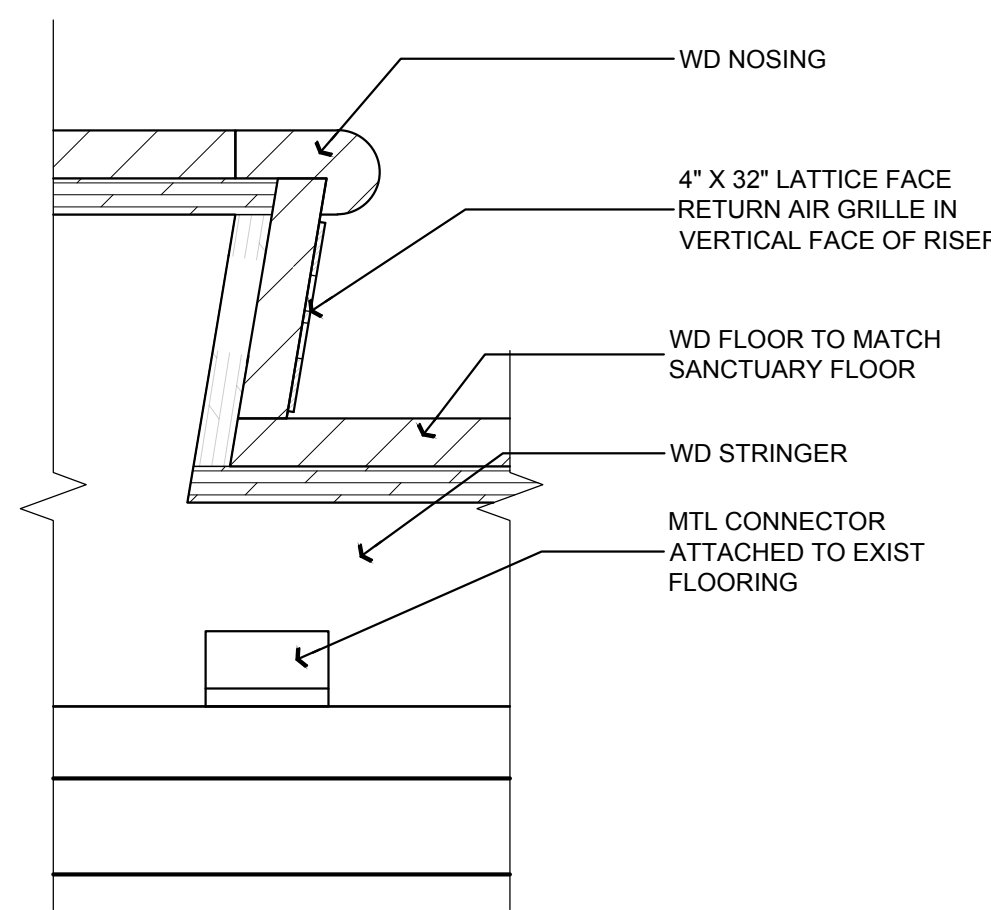
RAISED SANCTUARY SUPPORT

Scale: 1 1/2"=1'-0"



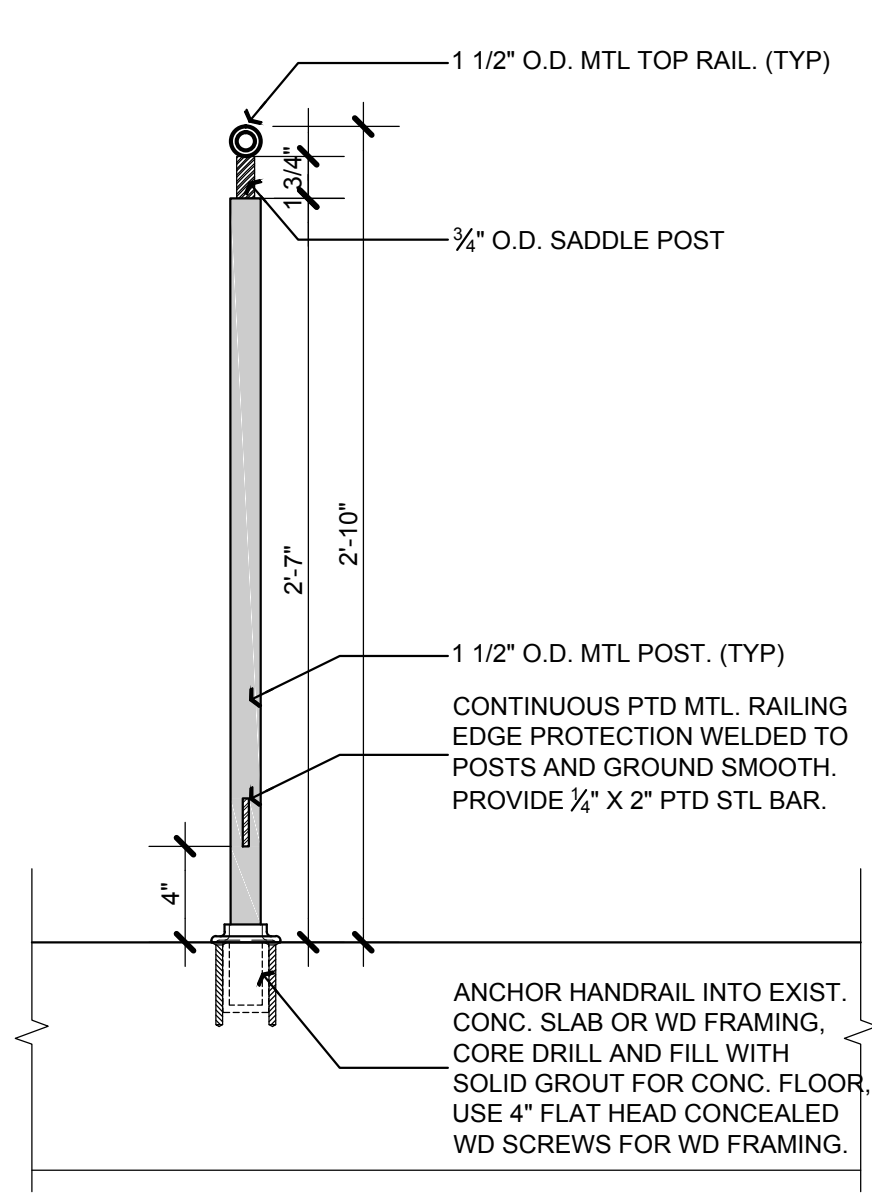
FRONT STEPS AT RAISED SANCTUARY

Scale: 1 1/2"=1'-0"



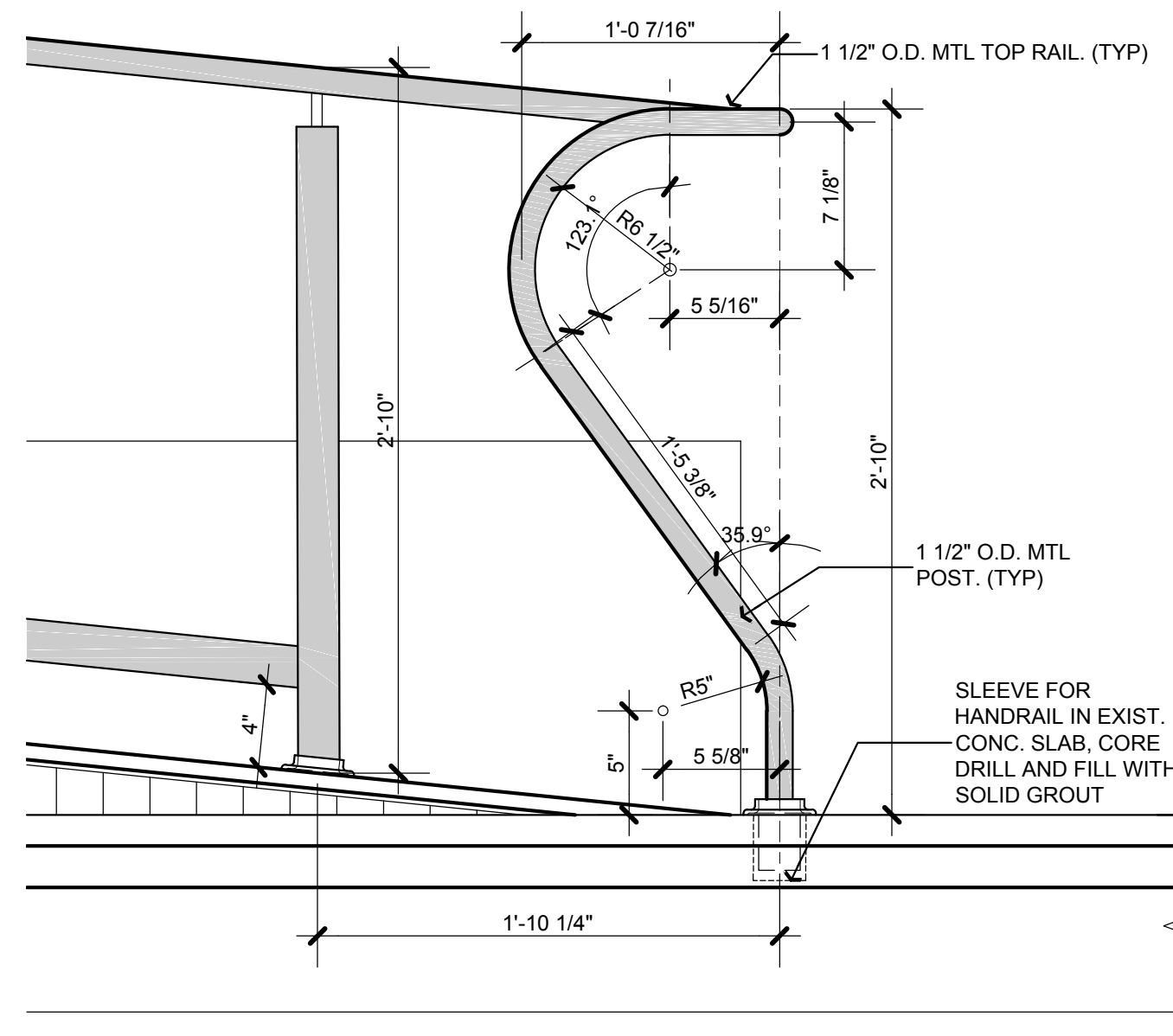
RETURN AIR GRILLE AT STEP

Scale: 3"=1'-0"



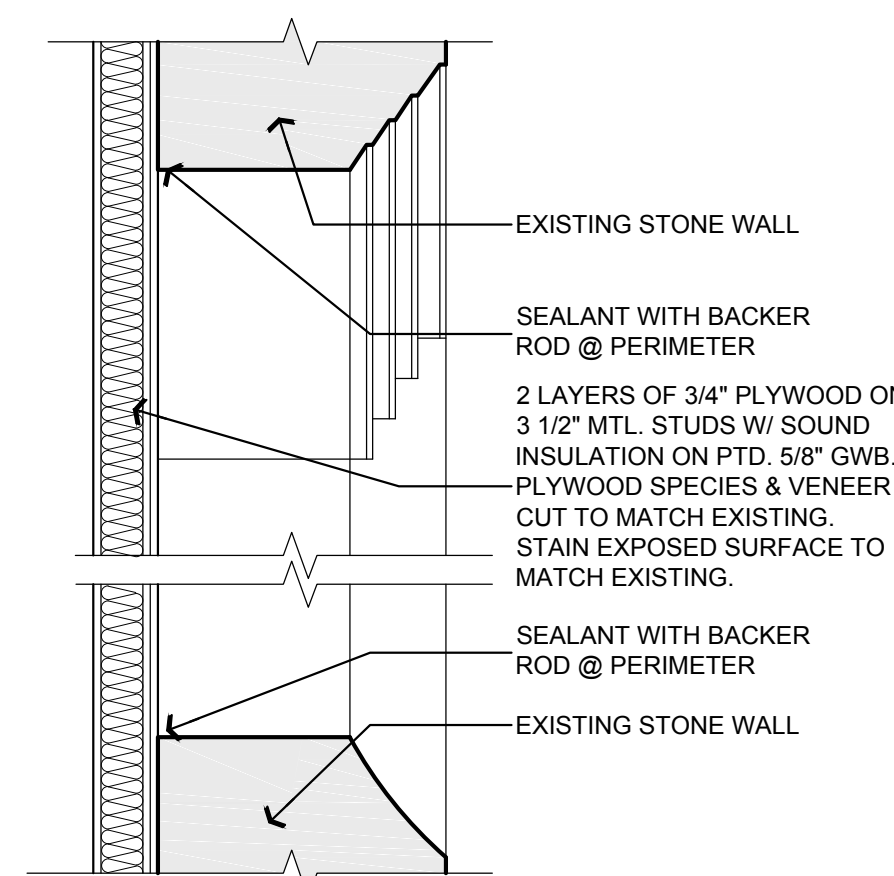
TYPICAL RAIL SECTION

Scale: 1 1/2"=1'-0"



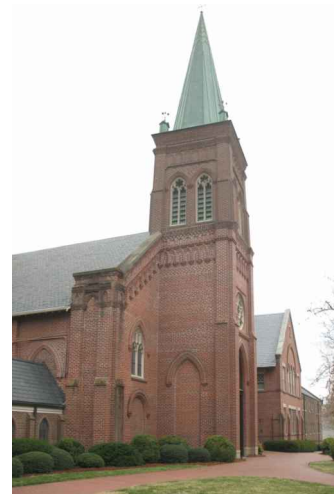
RAIL TERMINATION AT RAMP

Scale: 1 1/2"=1'-0"



INFILL AT ORGAN PIPES

Scale: 3/4"=1'-0"



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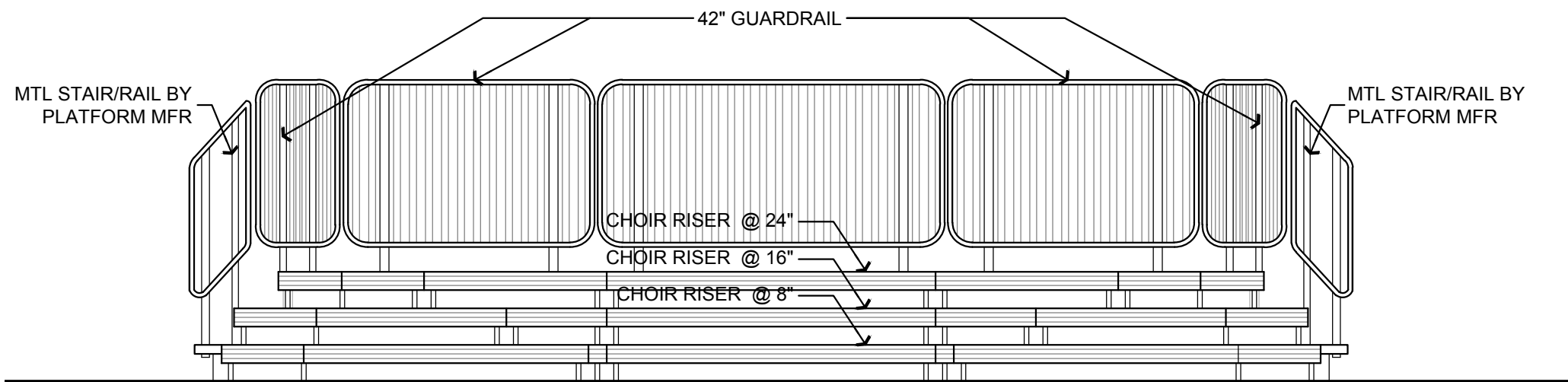
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SECTION DETAILS

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A7.2

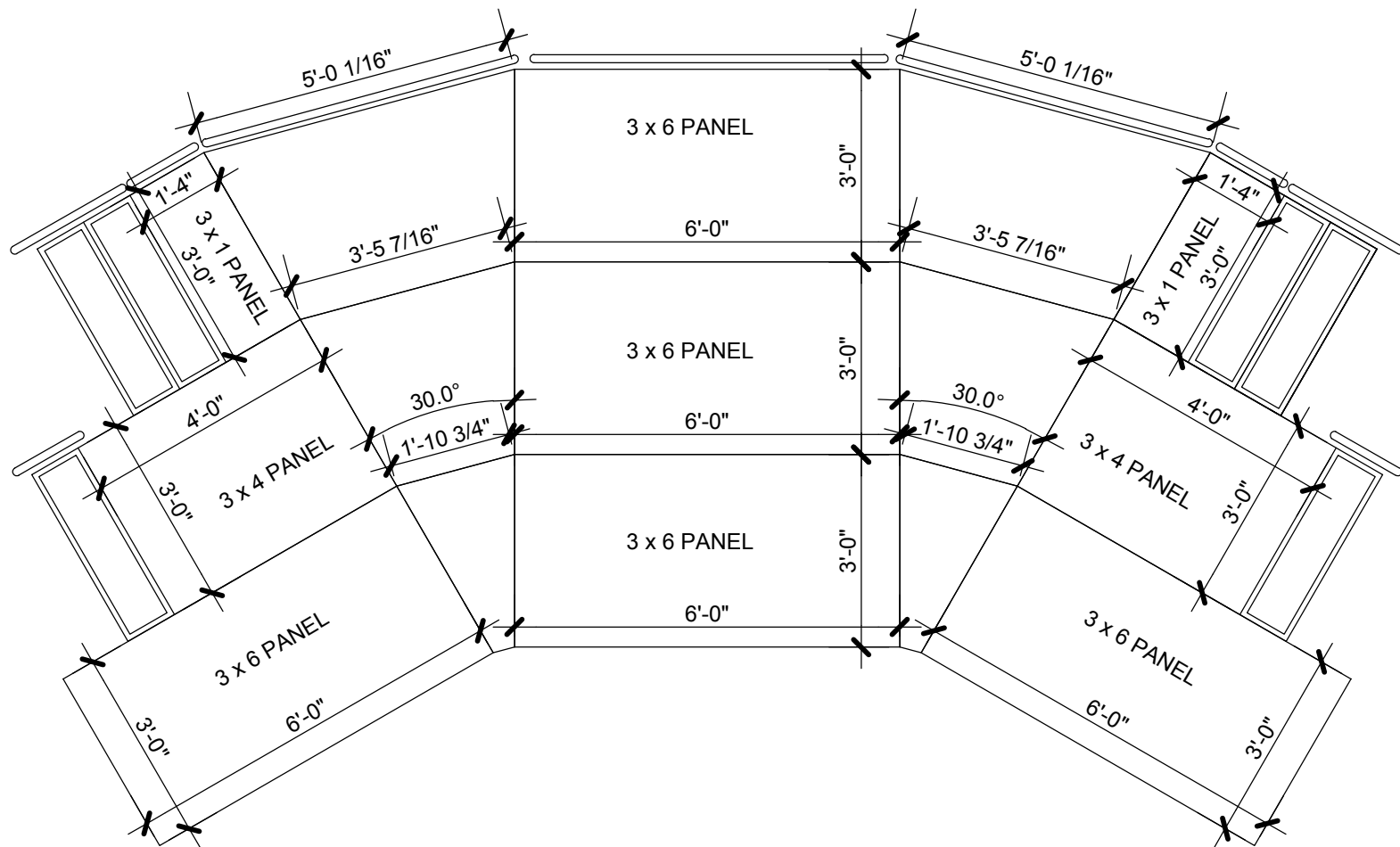
KGA PROJECT NO. 1103.03



5
A7.2

CHORAL RISER ELEVATION

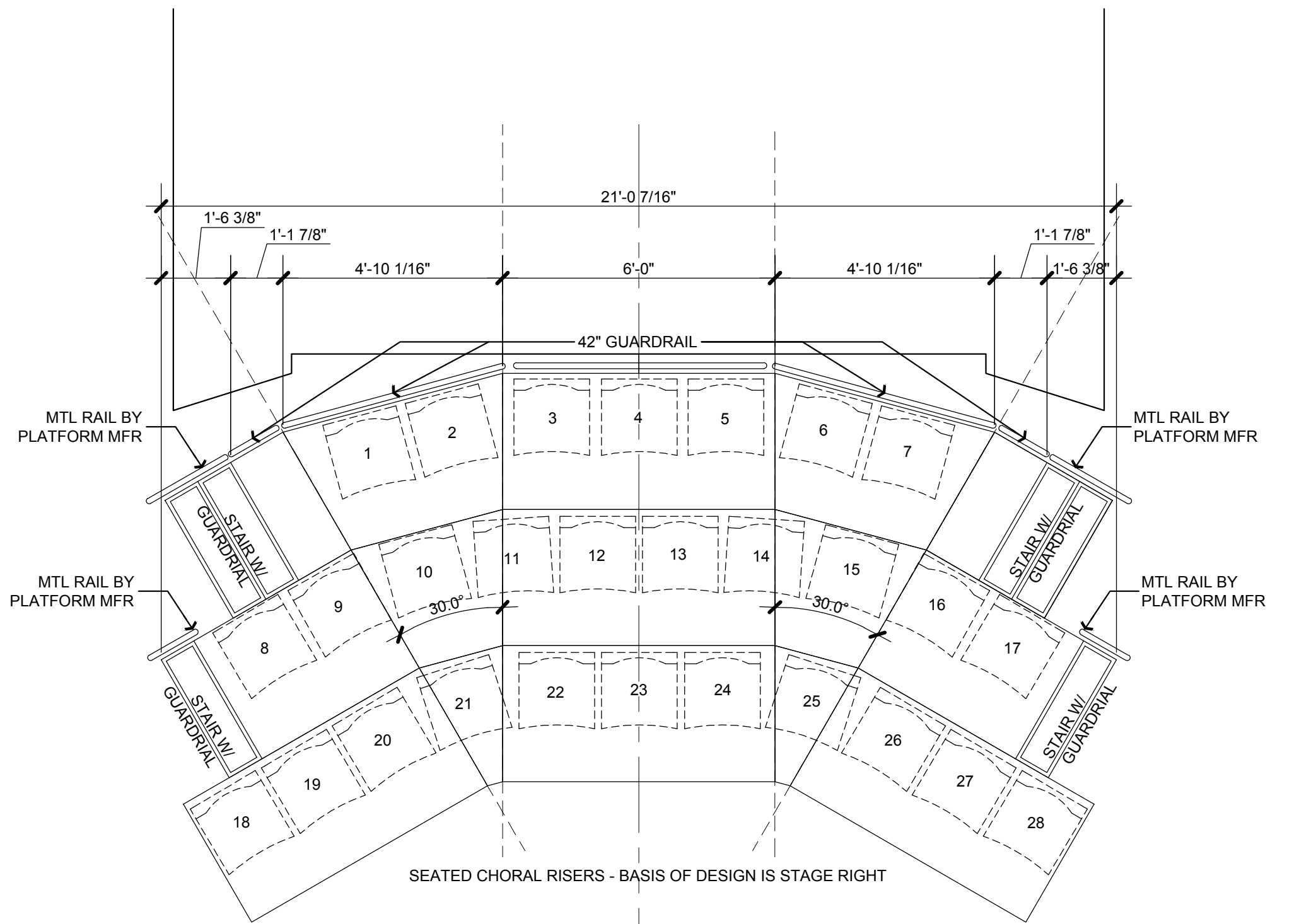
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4
A7.2

CHORAL RISER PLAN - COMPONENTS

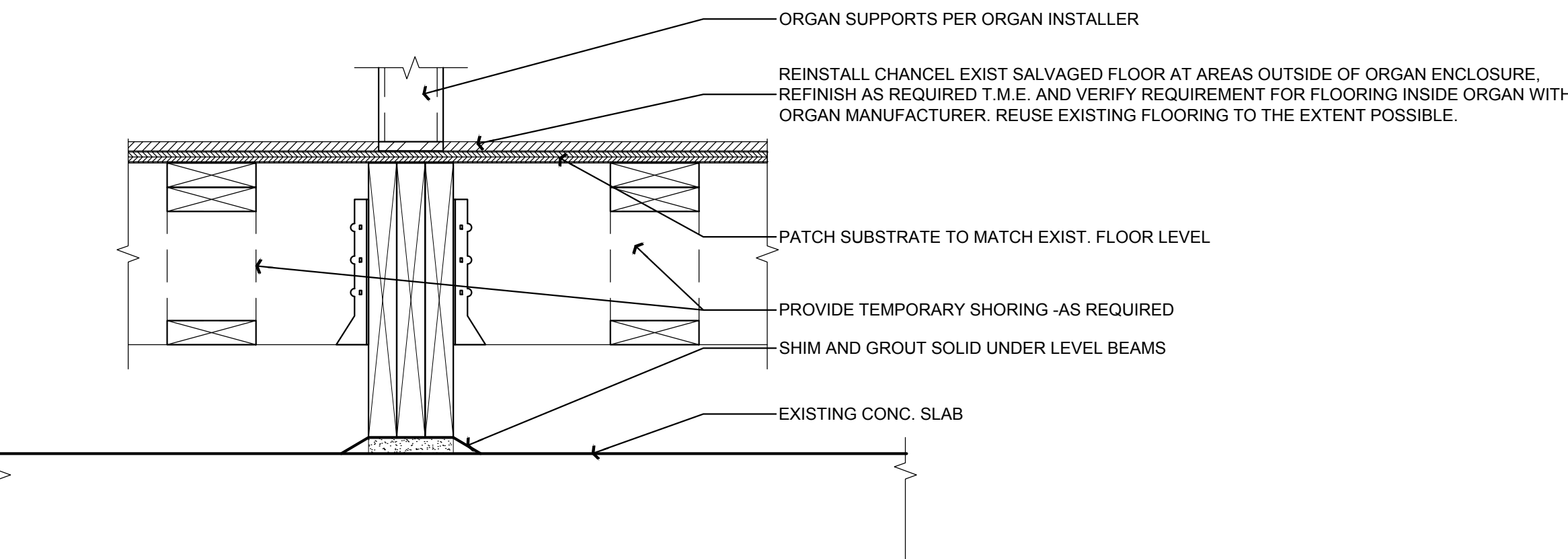
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2
A7.2

CHORAL RISER PLAN

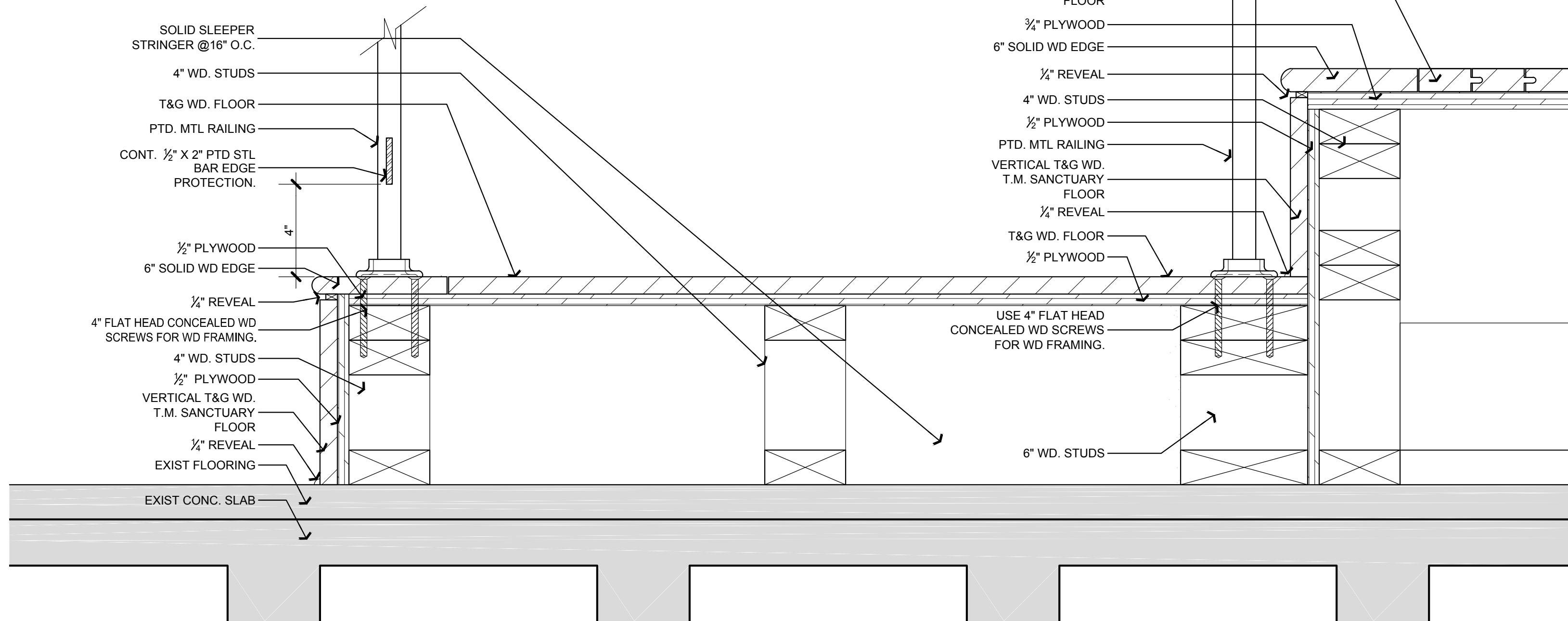
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6
A7.2

ORGAN STRUCTURAL SUPPORT

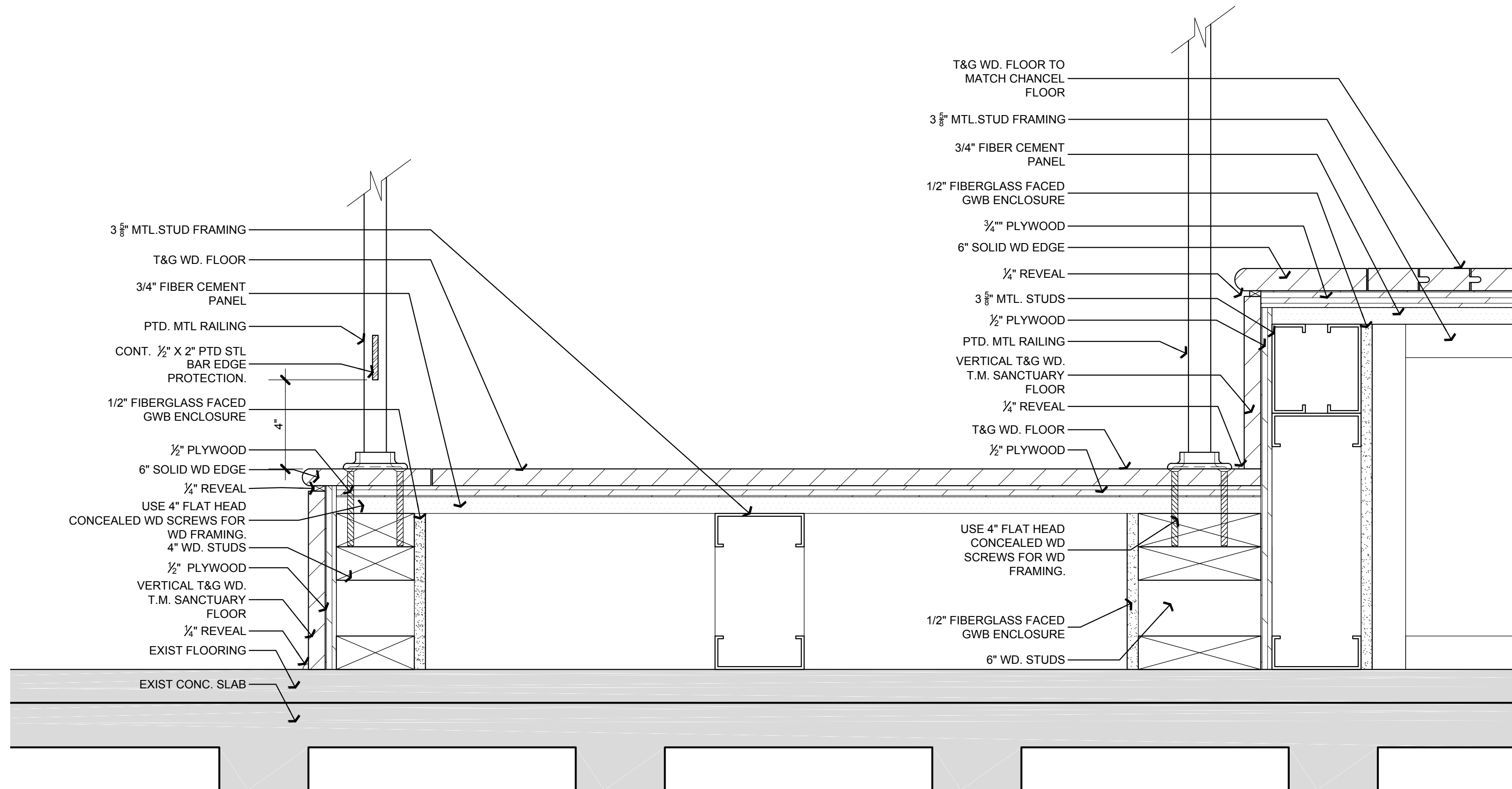
Scale: 1-1/2"=1'-0"



3
A7.2

RAISED SANCTUARY SECTION @ RAMP

Scale: 3"=1'-0"



1
A7.2

RAISED SANCTUARY SECTION AT PLENUM

Scale: 3"=1'-0"



FIRST
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SANCTUARY RENOVATION

40 CHURCH STREET
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DRAWING NO.

S1

KGA PROJECT NO. 1103.03

STRUCTURAL NOTES for 1st PRESBYTERIAN ORGAN INSTALLATION

A. GENERAL

- The structure is designed in accordance with the North Carolina State Building Code – 2012 Edition (2009 International Building Code with current North Carolina amendments).
- The design loads are as follows:
Live Load _____
Chancel Floor _____ 100 psf
Super-Imposed Dead Load _____
Organ Equipment _____ 19,000 lbs
- The structure has been designed to withstand In-Service loads only. Methods, procedures, and sequences of construction are the responsibility of the Contractor. The Contractor shall take all necessary precautions to maintain and insure the integrity of the structure at all stages of construction.
- Horizontal and vertical clearances from the existing adjacent structure shall be verified before construction is begun. Variations from the dimensions indicated on the contract documents shall be brought to the attention of the Architect and/or Structural Engineer.

B. STRUCTURAL STEEL

- Structural steel angles, channels, and plates shall conform to ASTM A36, grade 36 unless otherwise noted.
- Structural steel tubing shall conform to ASTM A500, Grade B, $f_y = 46$ ksi.
- Structural steel pipe shall conform to ASTM A53, Type E or S, Grade B, $f_y = 35$ ksi.
- Bolts for connecting structural steel shall be $\frac{3}{4}$ " diameter, conforming to ASTM A325-N, U.O.N.
- Fabrication and erection of all structural steel shall be in accordance with the latest AISC Specifications.
- Welding shall conform to the American Welding Society Standard D1.1. Electrodes for shop and field welds shall conform to AWS A5.1 or AWS 5.5, Class E70XX, low hydrogen, unless noted otherwise. Only welders who have been qualified by tests as prescribed in the referenced Standards to perform the type of work required shall make welds.
- Splicing of structural steel members where not detailed on the Contract Documents is prohibited without the prior approval of the Structural Engineer as to the location, type of splice, and connection to be made.

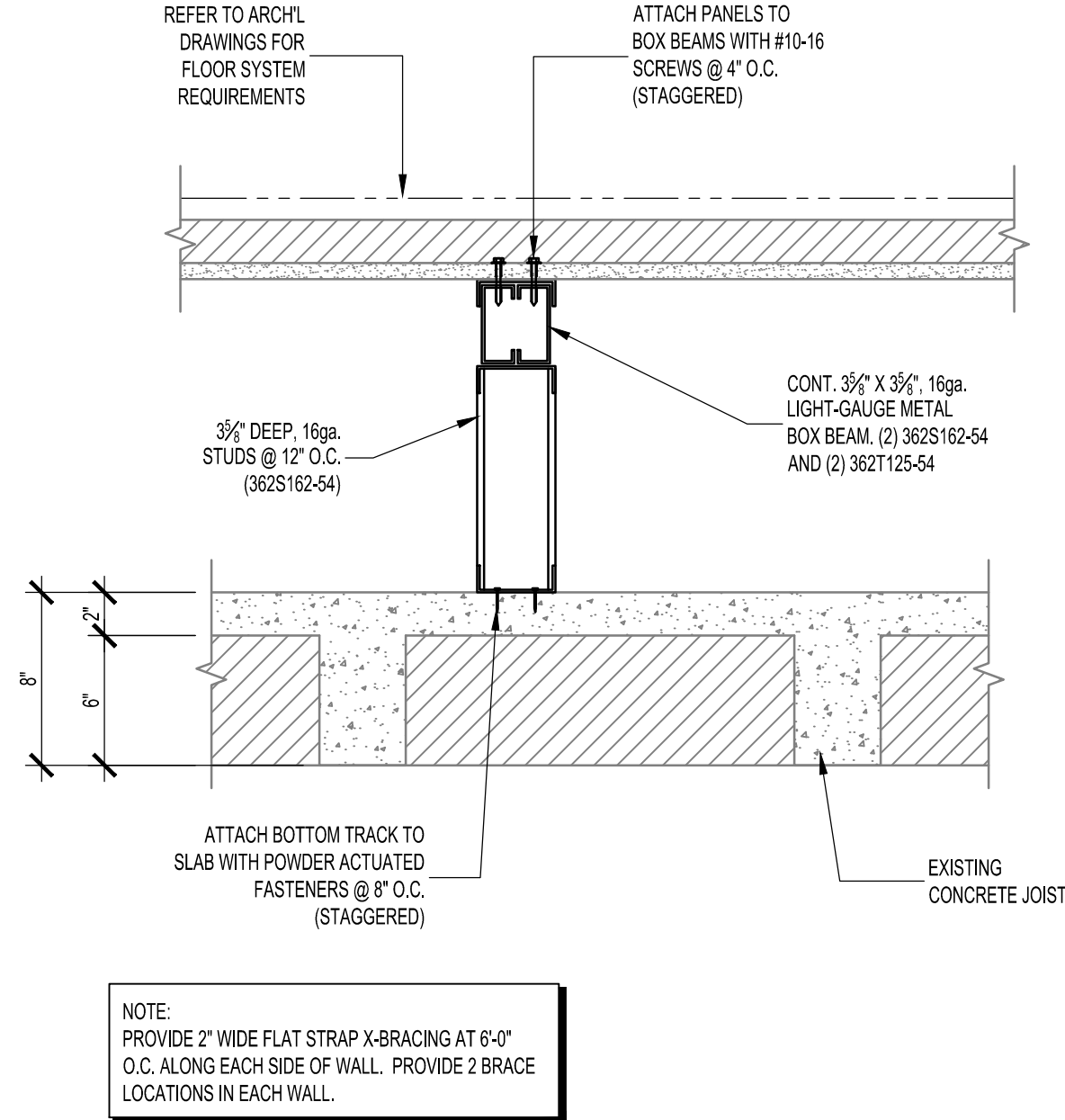
C. COLD-FORMED STEEL FRAMING

- Steel used in the manufacture shall be hot-dipped galvanized steel, (G-60/Z180) minimum coating weight and shall conform to ASTM A653/A653M, Grade D, minimum yield point of 50,000 psi for 12, 14, and 16 gauge members and ASTM A446, Grade A, minimum yield point of 33,000 psi for 18 and 20 gauge members.
- Light-gauge steel framing members and connections shall conform to the most current version of "Specifications for the Design of Cold-Formed Steel Members" by the American Iron and Steel Institute.
- All framing components shall be cut squarely for attachment to perpendicular members or as required for an angular fit against abutting members.
- All field cutting of studs must be done by sawing or shearing. Torch cutting of cold-formed members is not acceptable.
- No splices in structural cold-formed members may be made without prior review by the Structural Engineer, and specific details for any such splice(s).
- Provide double studs at jambs of all door and window openings, which exceed 24" horizontal width, unless otherwise noted on the drawings.
- The continuous light-gauge bottom track at the base of the metal stud wall shall be attached to the supporting concrete/steel using power-actuated fasteners: Ramset model 1512SD with $\frac{7}{16}$ " washer, $1\frac{1}{2}$ " length, 0.145 shank diameter, $1\frac{1}{4}$ " penetration, with or an approved equivalent.

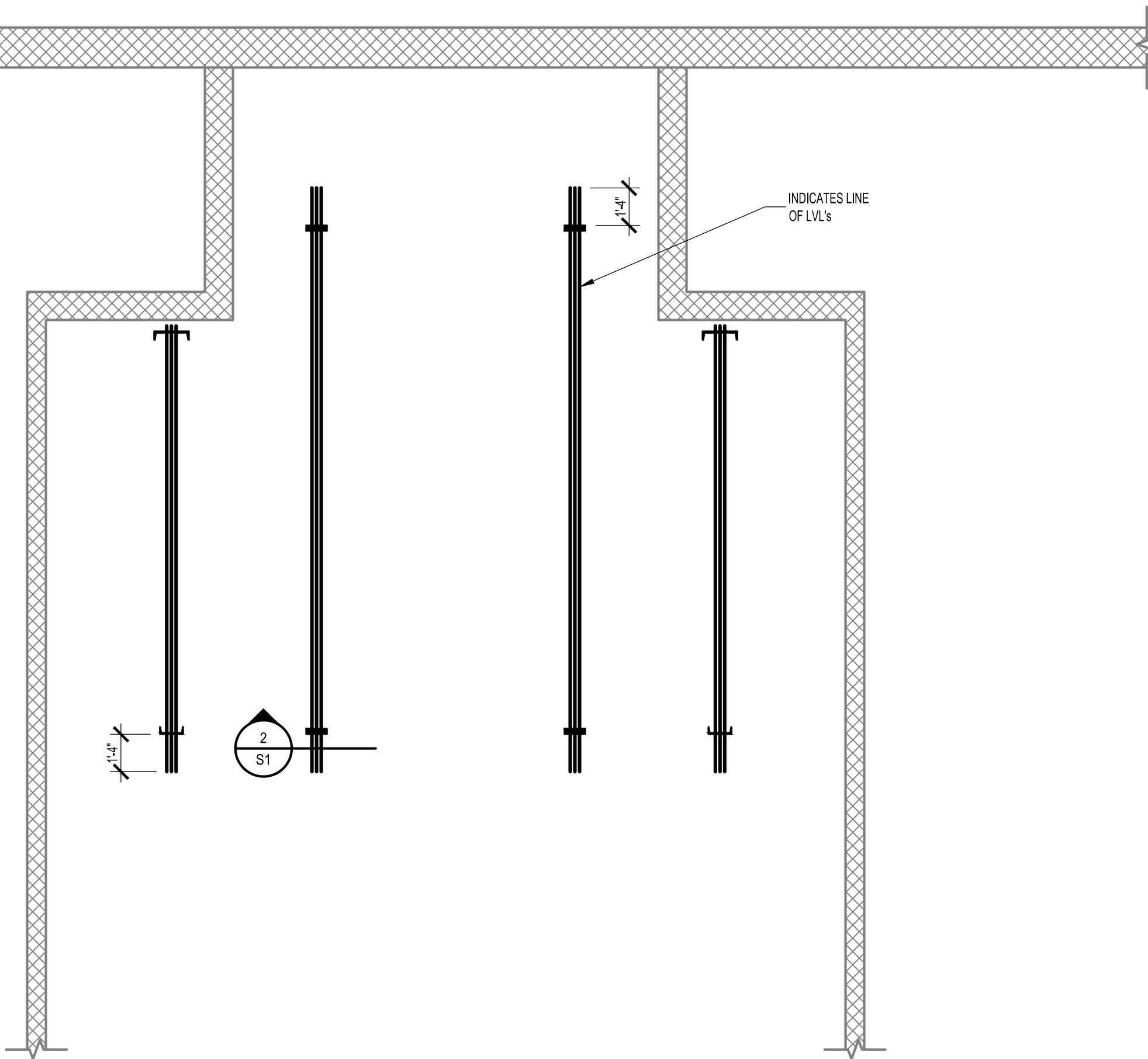
D. STRUCTURAL LUMBER

- All structural lumber shall conform to the most current applicable specifications of the American Institute of Timber Construction.
- All structural lumber shall be a minimum of No. 2, Southern Yellow Pine (SYP#2), with maximum moisture content of 19%, unless otherwise noted. Wall studs may be No. 2, Spruce-Pine-Fir (SPF#2), unless otherwise noted.
- All lumber noted "pressure treated" (P.T.) shall be pressure treated with water-borne preservatives. Pressure treatment shall comply with requirements AWPB standards C2 and LP-22.
- Metal connectors used to support pressure-treated wood members shall have a zinc coating conforming to the requirements of a G185 coating (1.85 oz/ft²). This conforms to the Simpson type ZMAX finish. All fasteners used with these connectors shall conform to the equivalent G185 coating.
- Provide nailing pattern in compliance with the North Carolina State Building Code recommended fastening schedule when joining two or more framing members. Provide floor and roof bridging in accordance with the NCSBC.
- Engineered structural wood products (i.e. PSL, LVL) shall have the minimum structural properties:

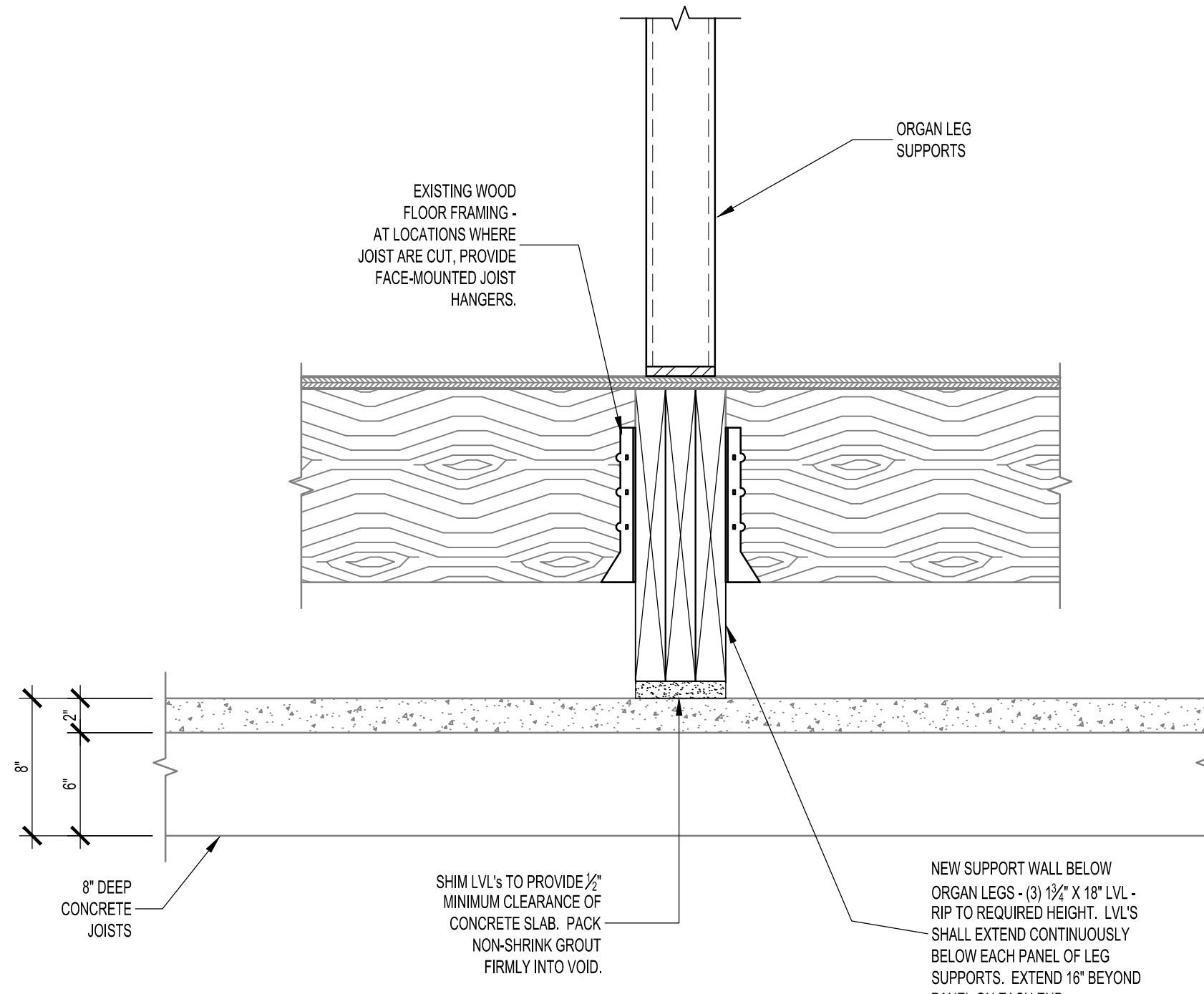
	PSL	LVL
Flexural Stress (F_b):	2,900 psi	2,600 psi
Modulus of Elasticity (E):	2,000 ksi	1,900 ksi
F_c perpendicular:	650 psi	750 psi



1 LIGHT-GAUGE METAL STUD
WALL @ CHANCEL EXTENSION



MAIN LEVEL PLAN
1/4"=1'-0"



2 SECTION AT LVL SUPPORT



3-14-2014



FIRST PRESBYTERIAN CHURCH SANCTUARY RENOVATION

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

100% DESIGN DEVELOPMENT SET	13 DEC 2013
FOR BID / PERMIT	6 MAR 2014
PERMIT PACKAGES	14 MAR 2014

CONSTRUCTION DOCUMENTS PHASE

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MECHANICAL NOTES AND SCHEDULES

DRAWING NO.

M1

KGA PROJECT NO. 1103.03

MECHANICAL SPECIFICATIONS

- Shop Drawings: Provide product data for all equipment and materials. Include pertinent dimensions, materials of construction, performance characteristics, weights and factory and field wiring diagrams.
- Operation and Maintenance Manuals: Provide 3 bound O&M Manuals at the completion of the project. Include approved shop drawings and manufacturer's maintenance manuals.
- Record Drawings: Contractor shall maintain a set of drawings on the job site to record all differences between the project documents and "As-Built". Contractor shall provide a set of "As-Built" drawings to the Owner at the completion of the project.
- Warranty: Contractor shall warranty the installation against defects for a period of one year from the date of Owner acceptance. Any defective materials or workmanship shall be replaced at no cost to the Owner.
- Permits and Fees: Contractor shall obtain and pay for all permits, fees and inspections required under his portion of the work.
- Common Motor Requirements: Motors shall comply with NEMA MG 1 unless otherwise indicated. Polyphase motors shall be NEMA MG 1, Design B, medium induction motor, energy efficient, as defined in NEMA MG 1, with a service factor of 1.15. Bearings shall be regreasable, shielded, antifriction ball bearings suitable for radial and thrust loading. Motor enclosure shall be cast iron for motor frame sizes 324T and larger; rolled steel for motor frame sizes smaller than 324T. Single phase motors larger than 1/20 hp shall be one of the following, to suit starting torque and requirements of specific motor application, permanent-split capacitor, split phase capacitor start, inductor run or capacitor start, capacitor run. Multispeed motors shall be variable-torque, permanent-split-capacitor type. Bearings shall be prelubricated, antifriction ball bearings or sleeve bearings suitable for radial and thrust loading. Thermal Protection: Internal protection to automatically open power supply circuit to motor when winding temperature exceeds a safe value calibrated to temperature rating of motor insulation. Thermal-protection device shall automatically reset when motor temperature returns to normal range. Motors 1/3hp and smaller shall be 115v/1ph, motors 1/2hp and larger shall be 208-230v/3ph unless noted otherwise.
- Testing and Balancing: Perform testing and balancing procedures on each system according to the procedures contained in AABC's "National Standards for Total System Balance", ASHRAE 111, NEBB's "Procedural Standards for Testing, Adjusting, and Balancing of Environmental Systems" or SMACNA's "HVAC Systems - Testing, Adjusting, and Balancing" and in this Section. Prepare test reports for both fans and outlets. Prepare a certified written report; tabulate and divide the report into separate sections for tested systems and balanced systems. Include a certification sheet at the front of the report's binder, signed and sealed by the certified testing and balancing engineer. Include a list of instruments used for procedures, along with proof of calibration. The final report shall contain the following in addition to certified field-report data, fan curves, manufacturers' test data and field test reports prepared by system and equipment installers, other information relative to equipment performance; do not include Shop Drawings and product data. In addition to form titles and entries, include the following data title page, name and address of the TAB contractor, project name, project location, report date, signature of TAB supervisor who certifies the report, table of contents. The report shall contain a summary of contents including the following, indicated versus final performance, notable characteristics of systems, description of system operation sequence if it varies from the Contract Documents, nomenclature sheets for each item of equipment, data for terminal units, including manufacturer's name, type, size, and fittings, notes to explain why certain final data in the body of reports vary from indicated values, test conditions for fans performance forms including settings for outdoor-, return-, and exhaust-air dampers, conditions of filters, cooling coil, wet- and dry-bulb conditions, fan drive settings including settings and percentage of maximum pitch diameter and other system operating conditions that affect performance.
- PVC Piping: PVC pipe and fittings shall be solid-Wall PVC Pipe, ASTM D 2665. PVC socket fittings shall be ASTM D 2665, made to ASTM D 3311, drain, waste, and vent patterns and to fit Schedule 40 pipe.
- Piping Insulation: Flexible elastomeric insulation shall be closed-cell, sponge- or expanded-rubber materials complying with ASTM C 534, Type I for tubular materials. Mineral-fiber, preformed pipe insulation shall be Type I, 850 Deg F, mineral or glass fibers bonded with a thermosetting resin, complying with ASTM C 547, Type I, Grade A, with factory-applied FSK jacket (FSK Jacket). Install insulation continuously through non-fire rated walls and partitions. Install insulation continuously through penetrations of fire-rated walls and partitions and seal in accordance with a UL approved through penetration system. Domestic cold, hot water and recirculated hot water insulation shall be 1inch thick mineral-fiber. Insulate exposed piping including drain and water supplies under handicapped lavatories and sinks, to meet the requirements of ADA 4.19.4, ADAAG 606.5, ICC/ANSI A117.1 606.6, or GSA & DOD's ABA 606.5.requirement to "protect against contact - no sharp or abrasive surfaces"
- Domestic Water Piping (Metallic): Hard copper tube shall be ASTM B 88, Type L water tube, drawn temper. Soft copper tube shall be ASTM B 88, Type K water tube, annealed temper. Fittings shall be cast-copper, solder-joint fittings, ASME B16.18, pressure fittings or wrought-copper, solder-joint fittings, ASME B16.22 pressure fittings. Bronze flanges shall be ASME B16.24, Class 150, with solder-joint ends. Copper unions shall be MSS SP-123 cast-copper-alloy, hexagonal-stock body with ball-and-socket, metal-to-metal seating surfaces and solder-joint or threaded ends. Above grade water piping shall be Type L hard copper. Below grade piping shall be Type K soft copper. Piping shall be tested for leaks in accordance with Chapter 312 of the 2012 NC Plumbing Code. Domestic water piping shall be sanitized in accordance with Chapter 610 of the 2012 NC Plumbing Code
- Duct Insulation: Mineral-Fiber Blanket Insulation: Mineral or glass fibers bonded with a thermosetting resin. Comply with ASTM C 553, Type II and ASTM C 1290, Type III with factory-applied FSK jacket (FSK Jacket). Aluminum-foli, fiberglass-reinforced scrim with kraft-paper backing; complying with ASTM C 1136, Type II). FSK Jacket Adhesive shall comply with MIL-A-3316C, Class 2, Grade A for bonding insulation jacket lap seams and joints. Concealed, supply-air duct shall be insulated with mineral-fiber blanket, 1-1/2 inches thick (R6) and with a nominal density of 1.5-lb/cu. ft. Concealed, return-air duct shall be insulated with mineral-fiber blanket, 1-1/2 inches thick (R6) and with a nominal density of 1.5-lb/cu. ft. Concealed outside air duct and plenums shall be insulated with mineral-fiber blanket, 2 inches thick (R8) and with a nominal density of 1.5-lb/cu. ft. Exposed exhaust air duct downstream of exhaust fan and plenum at lower to be insulated with mineral fiber board, 1-1/2 inches thick (R6) with a nominal density of 3.0-lb/cu. ft.
- Metal Ducts: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" based on indicated static-pressure class unless otherwise indicated. Select joint types and fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible." Figure 2-1, "Rectangular Duct/Transverse Joints," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's

"HVAC Duct Construction Standards - Metal and Flexible." Select seam types and fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible." Figure 2-2, "Rectangular Duct/Longitudinal Seams," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible." Elbows, Transitions, Offsets, Branch Connections, and Other Duct Construction, select types and fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Chapter 4, "Fittings and Other Construction," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible." Materials shall comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" for acceptable materials, material thicknesses, and duct construction methods unless otherwise indicated. Sheet metal materials shall be free of pitting, seam marks, roller marks, stains, discolorations, and other imperfections. Galvanized sheet steel shall comply with ASTM A 653/A 653M with a galvanized coating designation of G60. Sealants and gaskets shall have surface-burning characteristics with a maximum flame-spread index of 25 and a maximum smoke-developed index of 50 when tested according to UL 723; certified by an NRTL. Hanger rods for noncorrosive environments shall be cadmium-plated steel rods and nuts. Strap and rod sizes shall comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Table 5-1, "Rectangular Duct Hangers Minimum Size," and Table 5-2, "Minimum Hanger Sizes for Round Duct."

- Manual Volume Dampers: Dampers shall be standard leakage rating, suitable for horizontal or vertical applications. Frames shall be hat-shaped, 0.094-inch-thick, galvanized sheet steel or 0.05-inch-thick stainless steel, with mitered and welded corners and flanges for attaching to walls or flangeless frames for installing in ducts. Blades shall multiple or single blade (maximum 6 inches wide), opposed-blade design constructed of galvanized-steel, 0.064 inch-thick. Blade Axles shall be galvanized steel or stainless steel with oil-impregnated bronze, molded synthetic, oil-impregnated stainless-steel sleeve or stainless-steel sleeve.
- Turning Vanes: Manufactured turning vanes for metal ducts shall be curved blades of galvanized sheet steel; support with bars perpendicular to blades set; set into vane runners suitable for duct mounting. Turning vanes shall comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible"; Figures 4-3, "Vanes and Vane Runners," and 4-4, "Vane Support in Elbows." Van construction shall be single wall.
- Duct-Mounted Access Doors: Fabricate access panels according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible"; Figures 7-2, "Duct Access Doors and Panels," and 7-3, "Access Doors - Round Duct." Doors shall be rectangular double wall, galvanized sheet metal with insulation fill and thickness as indicated for duct pressure class with hinges and latches, 1-by-1-inch butt or plano hinge and cam latches. Fabricate doors airtight and suitable for duct pressure class.
- Grilles, Registers and Diffusers: Ceiling Diffusers shall be constructed of steel with a white baked enamel finish. Diffusers shall be plaque face style designed for T-bar mounting with an adjustable pattern. Diffusers shall be provided with a combination damper and equalizing grid. See schedule for sizes and capacities. Fixed face grilles shall be constructed of Steel with a white baked enamel finish. Grilles shall have 1 inch frames with fixed 45 degree curved blades at 3/4" on center. See schedule for sizes and capacities.
- Steam Humidifier: Steam humidifier for steam distribution of humidity (steam vapor) into air handling shall be of the self-contained, electrically controlled design. Vapor shall generate steam from ordinary tap water. Indoor Split System Heat Pumps 5 tons or less: Indoor concealed evaporator-fan chassis shall be galvanized steel with flanged edges, removable panels for servicing, and faced, glass-fiber duct liner insulation on back of panel. Refrigerant coils shall be copper tube, with mechanically bonded aluminum fins and thermal-expansion valve complying with ARI 206/110. Electric coils shall be helical, nickel-chrome, resistance-wire heating elements; with refractory ceramic support bushings, automatic-reset thermal cutout, built-in magnetic contactors, manual-reset thermal cutout, airflow proving device, and one-time fuses in terminal box for overcurrent protection. Fan shall be forward-curved, double-width wheel of galvanized steel; directly connected to motor. Fan motors shall comply with NEMA designation, temperature rating, service factor, enclosure type, and efficiency requirements specified in section "Common Motor Requirements for HVAC Equipment." Surfaces in contact with the airstream shall comply with requirements in ASHRAE 62.1. Filters shall be factory-fabricated, dry, extended-surface type, 1 inch thick, MERV 7. Condensate drain pans shall be fabricated with two percent slope in at least two planes to collect condensate from cooling coils (including coil piping connections, coil headers, and return bends) and humidifiers, and to direct water toward drain connection. Extend drain pan downstream from leaving face to comply with ASHRAE 62.1. Thermostat shall be low voltage with subbase to control compressor and evaporator fan.
- Outdoor Split System Compressor Condensers 5 tons or less: Outdoor air-cooled, compressor-condenser casing shall be steel, finished with manufacturer's standard baked enamel, with removable panels for access to controls, weep holes for water drainage, and mounting holes in base. Provide brass service valves, fittings, and gage ports on exterior of casing. Compressor shall be hermetically sealed, scroll type, with crankcase heater and mounted on vibration isolation device. Compressor motor shall have thermal- and current-sensitive overload devices, start capacitor, relay, and contactors. Refrigerant shall be R-410A. Refrigerant coil shall be copper tube, with mechanically bonded aluminum fins and liquid subcooler and comply with ARI 206/110. Heat-pump components shall include reversing valve and low-temperature-air cutoff thermostat. Fan shall be aluminum-propeller type, directly connected to motor. Fan motor shall be permanently lubricated, with integral thermal-overload protection. Low ambient kit shall permit operation down to 45 deg F. Ground mounting base shall be 4 inch thick reinforced concrete pan. Roof mounting kit shall be 6 inch high rails installed in accordance with roof manufacturer's recommendations. Refrigerant line kits shall be soft-annealed copper suction and liquid lines factory cleaned, dried, pressurized, and sealed; factory-insulated suction line with flared fittings at both ends.
- Installation: All work and materials shall be in accordance with the applicable sections of the N.C. Building Code and local codes and ordinances. Equipment and materials shall be installed in compliance with manufacturer's installation recommendations and acceptable industry standards. The mechanical contractor is responsible for verifying existing conditions and dimensions before beginning work. Perform all work in a neat workman-like manner and in accordance with industry standards.

AIR DEVICE SCHEDULE

TAG	S1	S2	R1	R2
manufacturer (or equal)	Price	Price	Price	Price
model	520	LG50	LG50	LG50
type	Double deflection, 3/4" blade spacing, sidewall supply register	Lattice face 1/2" square mesh sidewall supply register	Lattice face 1/2" square mesh sidewall return grille	Lattice face 1/2" square mesh sidewall return grille
neck	30"x4"	50"x12"	32"x4"	18"x12"
airflow (cfm)	400	na	na	na
throw	14-21-30	na	na	na
pressure drop inches w.c.	.025	na	na	na
NC	<20	<20	<20	<20
applicable notes	1,2	1,2	1,2	1,2
1. Provide with white baked enamel finish unless noted otherwise. Confirm finish with architect prior to purchasing.				
2. Contractor to confirm existing opening sizes prior to purchasing air device.				

2012 APPENDIX B

BUILDING CODE SUMMARY:

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Method of Compliance [X] Prescriptive [] Energy Cost Budget

Thermal Zone 4
Winter Dry Bulb: 16°F
Summer Dry Bulb: 85°F

Interior Design Conditions
Winter Dry Bulb: 68°F
Summer Dry Bulb: 75°F
Relative Humidity: 50%

Building Heating Load: 36.0 mbh

Building Cooling Load: 6 tons, 72.0 mbh

Mechanical Spacing Conditioning System

Unitary

description of unit: split system high efficiency heat pumps
heating efficiency: See Schedules
cooling efficiency: See Schedules
heat output of unit: See Schedules
cooling output of unit: See Schedules

Boiler total boiler output. If oversized, state reason.n/a

Chiller total chiller capacity. If oversized, state reason. n/a

List equipment efficiencies: See Schedules

Equipment schedules with motors (mechanical systems)

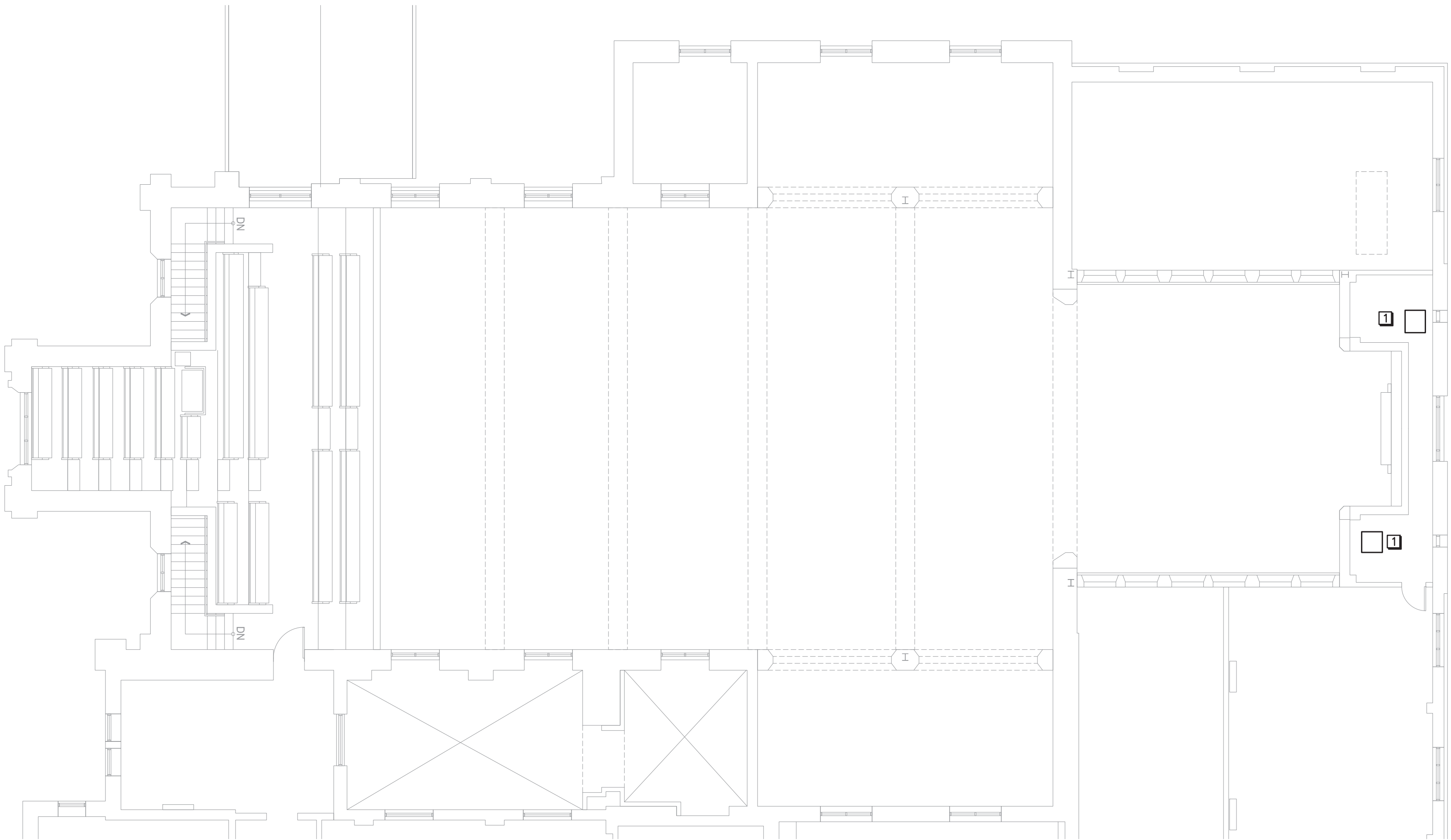
motor horsepower: - see schedules
number of phases: - see schedules
minimum efficiency: - manufacturer's standard meeting ASHRAE 90.1
motor type: - manufacturer's standard
of poles: - manufacturer's standard

HUMIDIFIER SCHEDULE

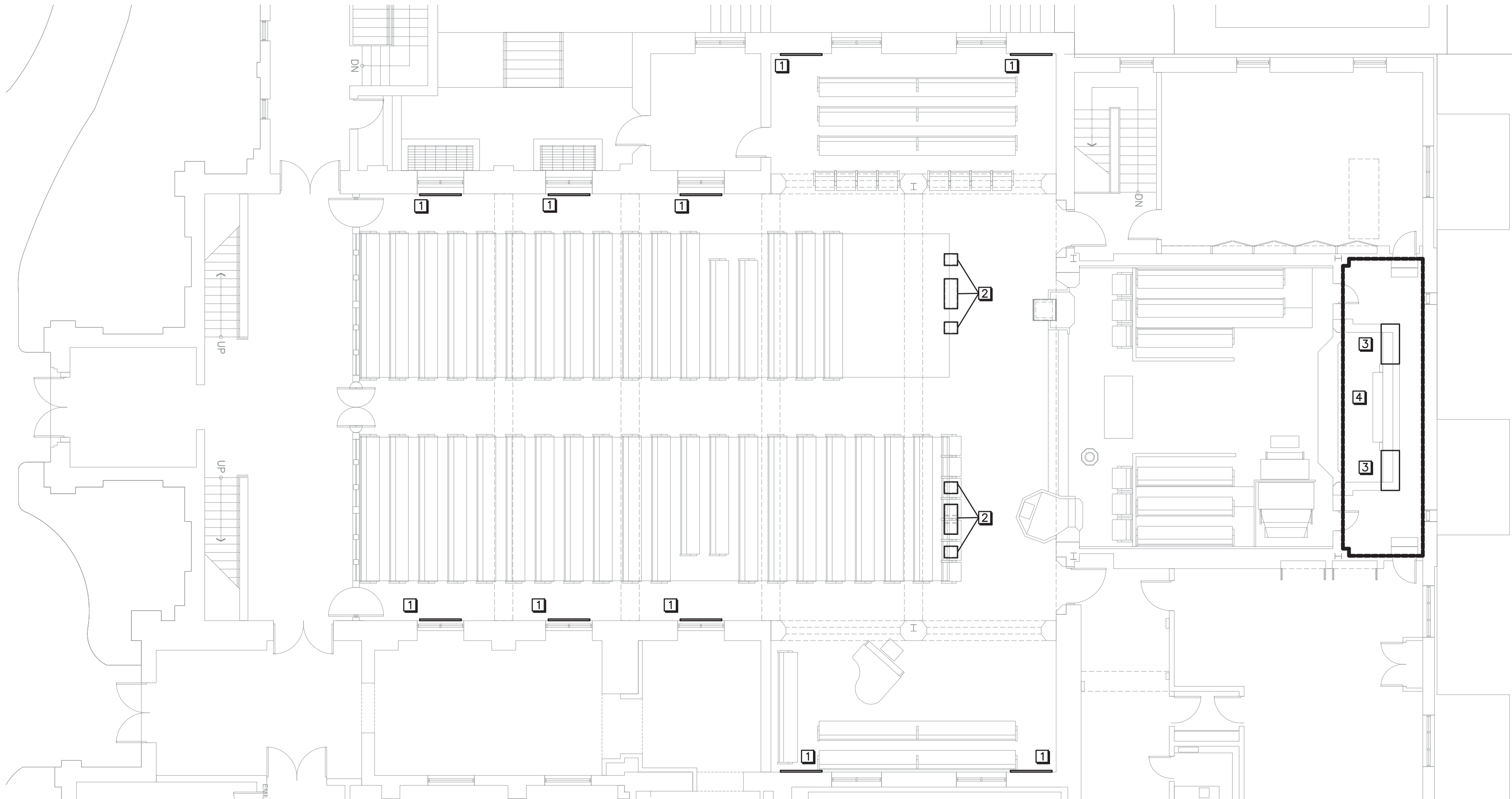
tag	HUM1	HUM2
location	AH1 supply duct	AH2 supply duct
manufacturer (or equal)	Honeywell	Honeywell
model	TrueSTEAM HM512	TrueSTEAM HM512
capacity (gallons/day)	12.0	12.0
airflow (cfm)	1,200	1,200
oa (cfm)	0	0
duct velocity (fpm)	1420	1420
duct size	18x12	18x12
no. of manifolds	1	1
heater capacity (kw)	9	9
voltage	120v/1ph	120v/1ph
mca		
mocp	15	15
weight (lbs)		
applicable notes	1	1
1. Provide humidistat with 4-20ma output to control humidifier output. Mount 48" AFF.		

SPLIT SYSTEM HEAT PUMP SCHEDULE

indoor unit tag	AH1	AH2
manufacturer (or equal)	Trane	Trane
indoor air handler model	Hyperion XL TAM8C	Hyperion XL TAM8C
airflow (cfm)	1200	1200
outside air (cfm)	0	0
e.s.p.	0.5" H2O	0.5" H2O
indoor fan hp	1/2	1/2
aux. heat capacity	3.6	3.6
indoor unit voltage	208v/1ph	208v/1ph
mca (208V/240V)	25	25
mocp (208V/240V)	25	25
weight (lbs)	160	160
outdoor unit tag	HP1	HP1
outdoor heat pump model	TWX8036A	TWX8036A
nominal tonnage	3	3
cooling capacity (95F Amb)	33.2	33.2
sensible capacity (75bd/63wb)	26.1	26.1
seer	18	18
heating capacity (mbh @ 47F)	38.0	38.0
hspf	10	10
no. of compressors	1	1
compressor rla	16.7	16.7
refrigerant	R-410A	R-410A
no. refrigerant circuits	1	1
outdoor unit voltage	208-230v/1ph	208-230v/1ph
mca	22	22
mocp	35	35
weight (lbs)	300	300
applicable notes	1,2,3,4,5,6,7	1,2,3,4,5,6,7,8
1. Provide outdoor unit with anti-shortcycle timer, evaporator defrost control, rubber isolator kit and crankcase heater.		
2. Provide 7-day programmable thermostat/humidistat with night setback and alarm display. Mount 48" AFF.		
3. Provide single point power connection to indoor air handler.		
4. Provide service access to unit per code and manufacturer's recommendation.		
5. Provide flexible duct connections to unit at supply and return mains.		
6. Route condensate to floor drain, hub drain or dry well - see plans.		
7. Provide auxiliary drain pan beneath unit extending 6" beyond air handler in all directions. Provide a float switch interlocked with the unit set shut down the unit and signal an alarm on the thermostat display .		



2
M2
BALCONY LEVEL
MECHANICAL DEMO PLAN
SCALE: 1/8" = 1'-0"



1
M2
MAIN LEVEL
MECHANICAL DEMO PLAN
SCALE: 1/8" = 1'-0"

KEYED MECHANICAL DEMO NOTES

- 1** REMOVE EXISTING AIR HANDLING UNIT, DUCTWORK, CHILLED WATER AND STEAM PIPING AND CONTROLS. CAP PIPING AT FLOOR.

KEYED MECHANICAL DEMO NOTES

- 1** REMOVE SIDEWALL SUPPLY GRILLES. CLEAN ACCESSIBLE DUCT WORK AT GRILLE.
- 2** REMOVE PERORATED COVERS ON RETURN GRILLES. CLEAN GRILLES AND ACCESSIBLE DUCTWORK.
- 3** REMOVE SIDEWALL SUPPLY GRILLES AND DUCTWORK. GC TO PATCH WALLS.
- 4** REMOVE ALL DUCTS AND PIPING IN THIS AREA FOR INSTALLATION OF THE ORGAN. CAP ABANDONED PIPING.



3-14-2014



**FIRST
PRESBYTERIAN CHURCH
SANCTUARY RENOVATION**

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

100% DESIGN DEVELOPMENT SET	13 DEC 2013
FOR BID / PERMIT	6 MAR 2014
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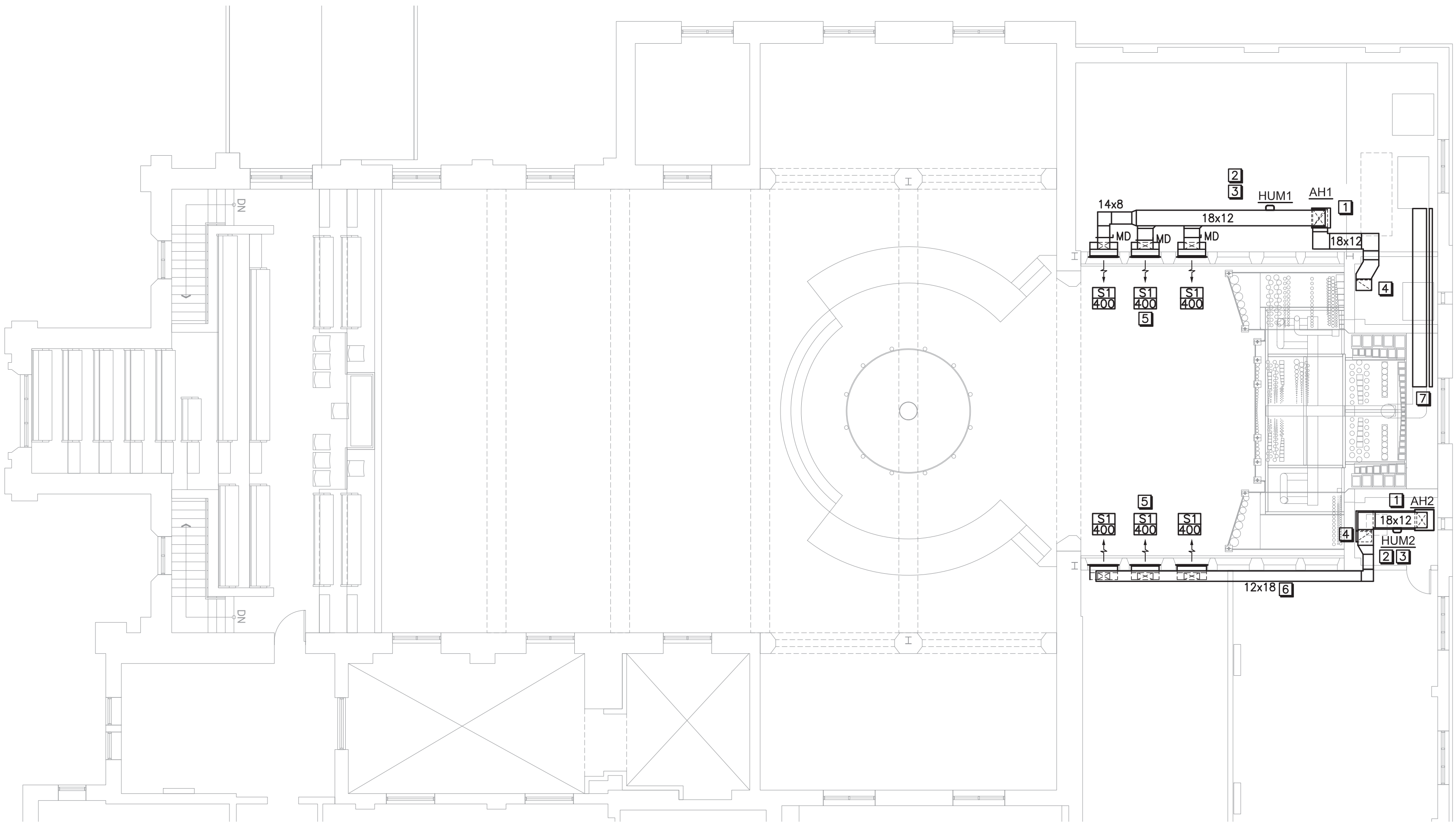
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**MECHANICAL
DEMOLITION PLANS**

DRAWING NO.

M2

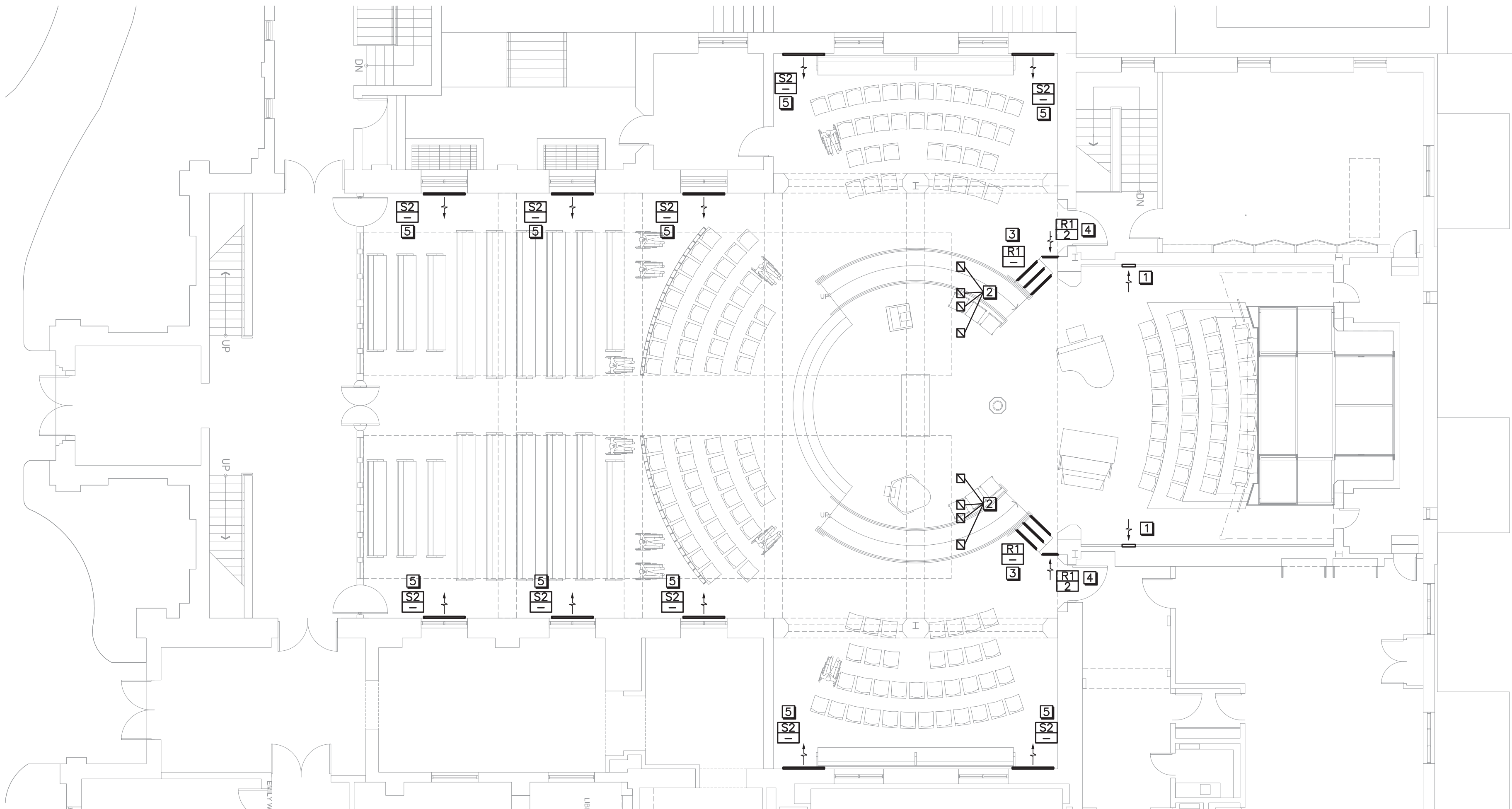
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2
M3
BALCONY LEVEL
MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

KEYED MECHANICAL NOTES

- 1 PIPE AH UNIT CONDENSATE DRAIN TO FLOOR DRAIN IN EXISTING MECHANICAL ROOM.
- 2 PIPE HUMIDIFIER DRAIN TO EXISTING FLOOR DRAIN IN EXISTING MECHANICAL ROOM.
- 3 PIPE 1/2" CW TO HUMIDIFIER FROM SOURCE ON FLOOR BELOW. CONTRACTOR TO CONFIRM ROUTING IN FIELD AND CONFIRM WITH ARCHITECT AND OWNER.
- 4 REMOVE GRILLE ON EXISTING RETURN IN FLOOR AND CONNECT RETURN DUCT.
- 5 INSTALL SUPPLY GRILLES IN BOTTOM OF EXISTING OPENINGS.
- 6 INSTALL SUPPLY DUCT IN EXISTING WALL CAVITY. PROVIDE MANUAL DAMPERS IN DUCT DROPS TO SUPPLY GRILLES.
- 7 PROVIDE STRAIGHT LENGTH OF 16"ø AND 3"ø SCHEDULE 40 PVC PIPES FOR ORGAN. COORDINATE EXACT LOCATION IN FIELD. CONNECTIONS TO ORGAN PIPES AND BLOWER BY OTHERS.
- 8 COORDINATE LOCATION OF OUTDOOR UNITS WITH ARCHITECT AND ENGINEER.



1
M3
MAIN LEVEL
MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

KEYED MECHANICAL NOTES

- 1 EXISTING WOODEN RETURN TO REMAIN AS-IS.
- 2 EXISTING FLOOR RETURNS TO REMAIN AS-IS.
- 3 RETURN GRILLES IN FACE OF STEP RISER, OPEN TO PLENUM UNDER PLATFORM.
- 4 RETURN GRILLE IN SIDE OF PLENUM.
- 5 INSTALL SUPPLY GRILLES IN EXISTING OPENINGS. (TYPICAL)



3-14-2014



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MECHANICAL PLANS

DRAWING NO.

M3

KGA PROJECT NO. 1103.03



3-14-2014



FIRST
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SANCTUARY RENOVATION

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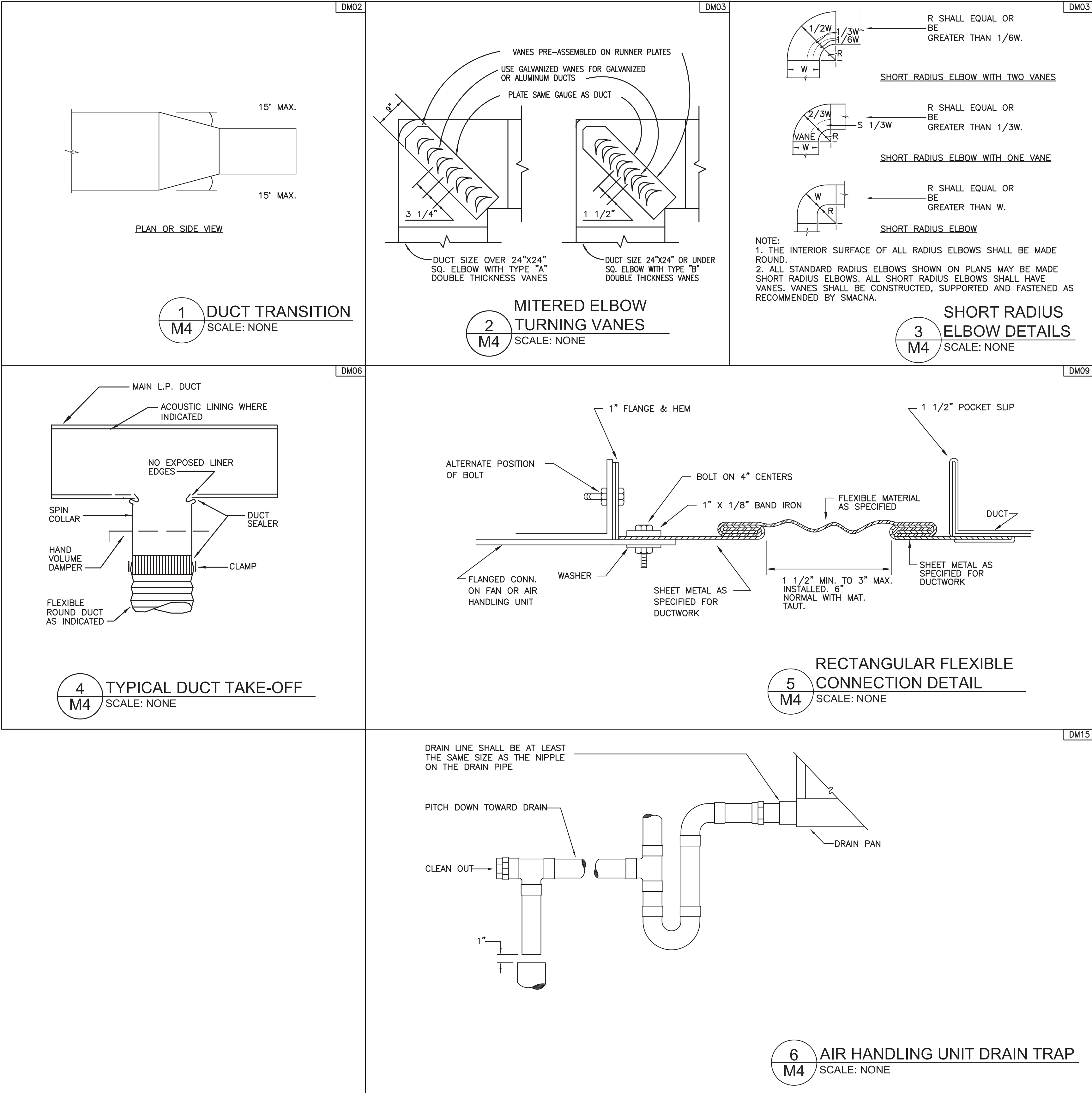
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MECHANICAL DETAILS

DRAWING NO.

M4

KGA PROJECT NO. 1103.03



BRANCH CIRCUIT CONDUCTOR
SIZING TABLE

For circuits with branch circuit protection rated 20 amps or less, copper conductors shall be sized according to the following:

voltage	distance (ft)	home run (AWG)	remainder (AWG)
120	0 - 50	12	12
	50 - 90	10	12
	90 - 140	8	10
	140 +	6	10
208	0 - 95	12	12
	95 - 160	10	12
	160 - 250	8	10
	250 +	6	10

2012 APPENDIX B
BUILDING CODE SUMMARY:

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance:

Prescriptive Performance

Energy Cost Budget

Lighting schedule

lamp type required in fixture (see fixture schedule)
number of lamps in fixture (see fixture schedule)
ballast type used in the fixture (see fixture schedule)
number of ballasts in fixture (see fixture schedule)
total wattage per fixture (see fixture schedule)
total interior wattage specified vs. allowed (1.95 W/sf allowed space by space) 6 kW vs. 9 kW
total exterior wattage specified vs. allowed -

Equipment schedules with motors (not used for mechanical systems)

motor horsepower n/a
number of phases n/a
minimum efficiency n/a
motor type n/a
of poles n/a

WIRING DEVICE NOTES

- Switches shall be Hubbell CS115 or equivalent and receptacles shall be Hubbell CR20 or equivalent. Devices shall be white or as directed by architect.
- Switches shall be as follows:
single pole 20 amp CSB20AC1-4
3 way 20 amp CSB20AC3-4
4 way 20 amp CSB20AC4-4
motor starter switch Square D type "K" series
- Duplex receptacle shall be as follows:
20 amp duplex PS53621
20 amp duplex-GFCI 2095IL
20 amp duplex-Weather GFI 2095TRWRI

Note: Duplex receptacles have nylon face and side wire type. Receptacles shall have brass contacts, brass terminal screws and green ground wire screw. GFCI receptacle shall be included with a trip indicator light.

- Coverplates shall be oversized stainless steel SSJX or as directed by architect.
- Outlet boxes shall not be mounted back-to-back.
- Receptacles shall be 20 amp unless 15 amp is required by equipment served.
- Weatherproof in use covers shall be clear equal to Leviton. For horizontal mount covers use part no. "5997-CL". For vertical mount covers use part no. "5977-CL".
- All outlets (including telephone and data) shall have cover plates.

ELECTRICAL NOTES

- The intent of these drawings and specifications are to describe the installation of a complete, fully adjusted, and operational system.
- Provide five sets of electrical equipment submittals to the GC for the architect, engineer, GC and owner to review and approve prior to purchasing.
- The contractor shall provide all supervision, labor, material, equipment, machinery, and any and all other items necessary to complete the system. All work shall be performed in a neat and workmanlike manner in accordance with industry standards.
- All work under this section shall be accomplished in strict accordance with state building codes and the National Electric Code. Coordinate with local power company requirements.
- The contractor shall obtain all necessary approval, obtain all permits and pay all fees required for the installation of their work.
- The drawings are diagrammatic only. The contractor may need to make field adjustments to accommodate actual field conditions.
- Devices located in rated walls shall have sufficient separation from other devices to allow proper installation and firestopping.
- The contractor shall refer to the architectural and structural drawings for the general construction of the building, for floors and ceiling heights, for locations of wall, partitions, beams, etc.
- Manufacturer's listed are to establish a standard of quality and not intended to limit the selection to these manufacturers.
- Contractor shall verify all listed model numbers with manufacturers to insure proper application of equipment.
- Equipment and materials shall be handled, stored and protected in accordance with the manufacturer's recommendations.
- The contractor shall perform any and all trenching, excavation and backfilling required for the installation of this work.
- The contractor shall furnish all necessary scaffolding, staging, rigging and hoisting required for the completion of this work.
- All work shall be coordinated with the general contractor and other trades involved in the construction project. All work shall be carefully laid out in advance to coordinate architectural, structural, mechanical, plumbing and electrical features of construction.
- The electrical contractor shall visit the site before submitting his bid so as to be thoroughly familiar with the job conditions and/or peculiarities. No extra payment will be allowed for anything which could have been anticipated from a visit to the site.
- Equipment shall be installed in accordance with manufacturer's written instructions.
- Provide grounding for all conduits, motor frames, metal casings, receptacles, system neutral, etc. and as required by NEC as minimum. Resistance to ground shall not exceed 25 OHMS.
- A green insulated copper ground wire, sized per NEC, shall be installed in all raceways, electric metallic tubing used for feeders, branch circuits, flexible conduit, and as otherwise noted on the drawings.
- All fixtures shown on the plans shall be furnished and installed, complete with all mounting accessories, lamps and tubes. Fixtures shall be independently supported from structure. Coordinate closely with architectural plans for lighting schedules, dimmer schedules and other lighting requirements.
- All wiring shall be run in conduit. The minimum indoor conduit size shall be 1/2". Indoor conduit shall be electrical metallic tubing or type MC may be used for branch circuits where allowed by NEC and not subject to physical damage, moisture or dampness. Connection to equipment shall be flexible metal conduit except in wet or damp locations use liquid tight flexible metal conduit. Indoor boxes and enclosures shall be NEMA type 1, except in damp or wet locations use NEMA type 4, stainless steel. Where nonmetallic conduit is used below the slab provide rigid conduit to turn up into the building space or at all exterior walls, poles or equipment. Use raceway fittings compatible with raceway and suitable for use and location. Run concealed raceways with a minimum of bends in the shortest practical distance considering the type of building construction and obstructions. Raceways shall run parallel to or at right angles to nearby surfaces or structural members, and follow the surface contours as much as practical. Provide grounding connections for raceway, boxes, and components as indicated and instructed by manufacturer. Tighten connections and terminals, including screws and bolts, according to equipment manufacturer's published torque-tightening values for equipment connectors. Where manufacturer's torquing requirements are not indicated, tighten connectors and terminals according to tightening torques specified in UL standard 486A.
- Color for devices shall be coordinated with the general contractor.
- Receptacles shall comply with UL Standard 498, "electrical attachment plugs and receptacles," heavy-duty grade 20 AMP rated except as otherwise indicated.
- Ground-fault circuit interrupter (GFI) receptacles shall comply with UL Standard 943, "Ground fault circuit interrupters," with integral NEMA 5-20R duplex receptacle.
- Single pole and three/four-way toggle type snap switches shall be 20 AMP 120/277 V, AC., rated, quite-type A.C. switches, NRTL listed and labeled as complying with UL Standard 20 "general use snap switches," and with federal specification W-S-896.
- Wall plates: single and combination types shall be 302 stainless steel that mate and match with corresponding wiring devices.
- Conductors shall be color coded in accordance with NEC as follows:

Phase	208/120 Volts	480/277 Volts
A	Black	Brown
B	Red	Orange
C	Blue	Yellow
Neutral	White	Gray
Ground	Green	Green
- Electrical equipment shall be identified with labels of engraved plastic-laminate on each major unit of electrical equipment.
- Panelboards/loadcenters shall be type, rating, and features as indicated on the schedules. Enclosures shall be NEMA type 1, flush or surface mounted as indicated. Cabinet shall be code gauge, galvanized steel. Fronts shall be sheet steel with gray lacquer finish with hinged locking door. Ground and neutral bus shall be 100% rated. Bus shall be copper or aluminum. Main and neutral lugs shall be plug-on type. Equipment ground bus shall be adequate for feeder and branch-circuit equipment ground conductors bonded to box. Directory frame shall be metal, mounted inside each panel door. At the completion of this installation, type circuit designations on the directory card and leave in the card holder provided inside cabinet doors. Tandem circuit breakers shall not be used. Multi-pole breakers shall have common trip. The minimum interrupting rating for circuit breakers rated at 120/240 volts shall be 22,000 AMPS RMS symmetrical. For flush mounted panels provide a minimum of (4) -1" conduits stubbed to the ceiling space for future use.
- All wiring for equipment shall be copper with one of the following types of insulation: THW, THHW, THWN with a rating of at least 75 DEG. C. All wiring located above the ceiling shall be plenum-rated.
- Final locations of all exit and emergency lights shall be verified with the building inspector prior to installation.
- Branch circuits shall not exceed 80% of overcurrent protection. Devices shall be relocated to another circuit if found to be in excess of 80%.

KEYED DEMO NOTES

- EXISTING LIGHT FIXTURES. REBUILD, REWIRE, RE-LAMP, REINSTALL IN EXISTING LOCATION.
- REMOVE EXISTING LIGHT FIXTURE AND SALVAGE FOR OWNER.
- REMOVE ALL EXISTING TRACK LIGHTS AND CONDUIT RUNS.
- BASE BID: EXISTING FIXTURE TO REMAIN. ALTERNATE 4B: REMOVE EXISTING LIGHT FIXTURE AND SALVAGE FOR OWNER. FOR TRACK LIGHTS, REMOVE ALL EXISTING TRACK LIGHTS AND CONDUIT RUNS.
- ALTERNATES 5A AND 5B: REMOVE SOUND CONTROL CONSOLE.

1 DEMO PLAN
E1 SCALE: 1/8" = 1'-0"

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ARCHITECTS

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MPE ENGINEERS

TILDEN WHITE & ASSOC.
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AUDIO VISUAL CONSULTANT

MILLER, BEAM & PAGANELLI, INC.
12040 SOUTH LAKES DRIVE, SUITE 104
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LIGHTING CONSULTANT

HARTTRANFT LIGHTING DESIGN
214 WEST TREMONT AVENUE
SUITE 500, CHARLOTTE, NC 28203
TEL 240.731.1058



3-14-2014



FIRST
PRESBYTERIAN CHURCH
SANCTUARY RENOVATION

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

100% DESIGN DEVELOPMENT SET	13 DEC 2013
FOR BID / PERMIT	6 MAR 2014
PERMIT PACKAGES	14 MAR 2014

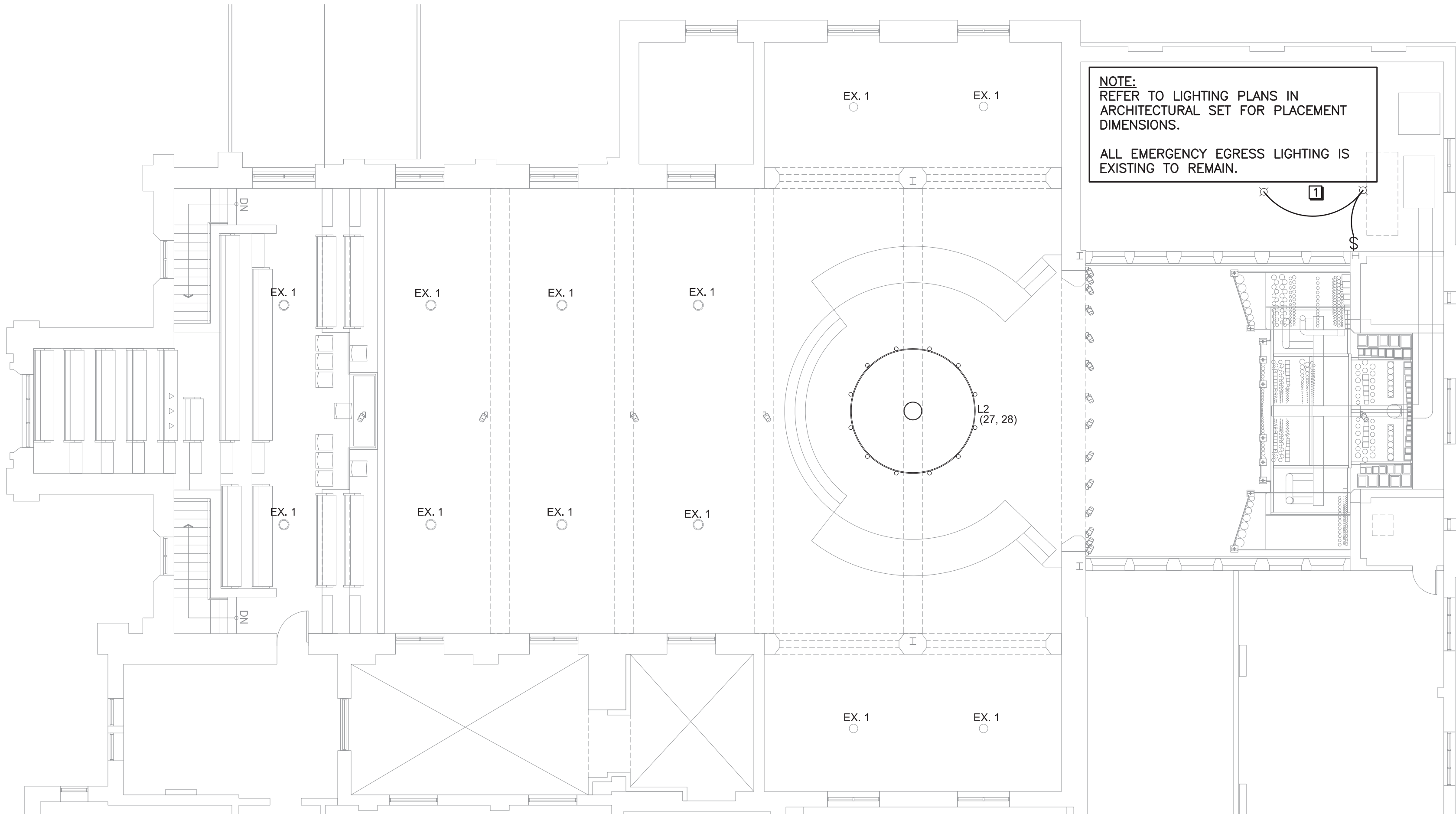
CONSTRUCTION DOCUMENTS PHASE

ELECTRICAL NOTES &
DEMO PLAN

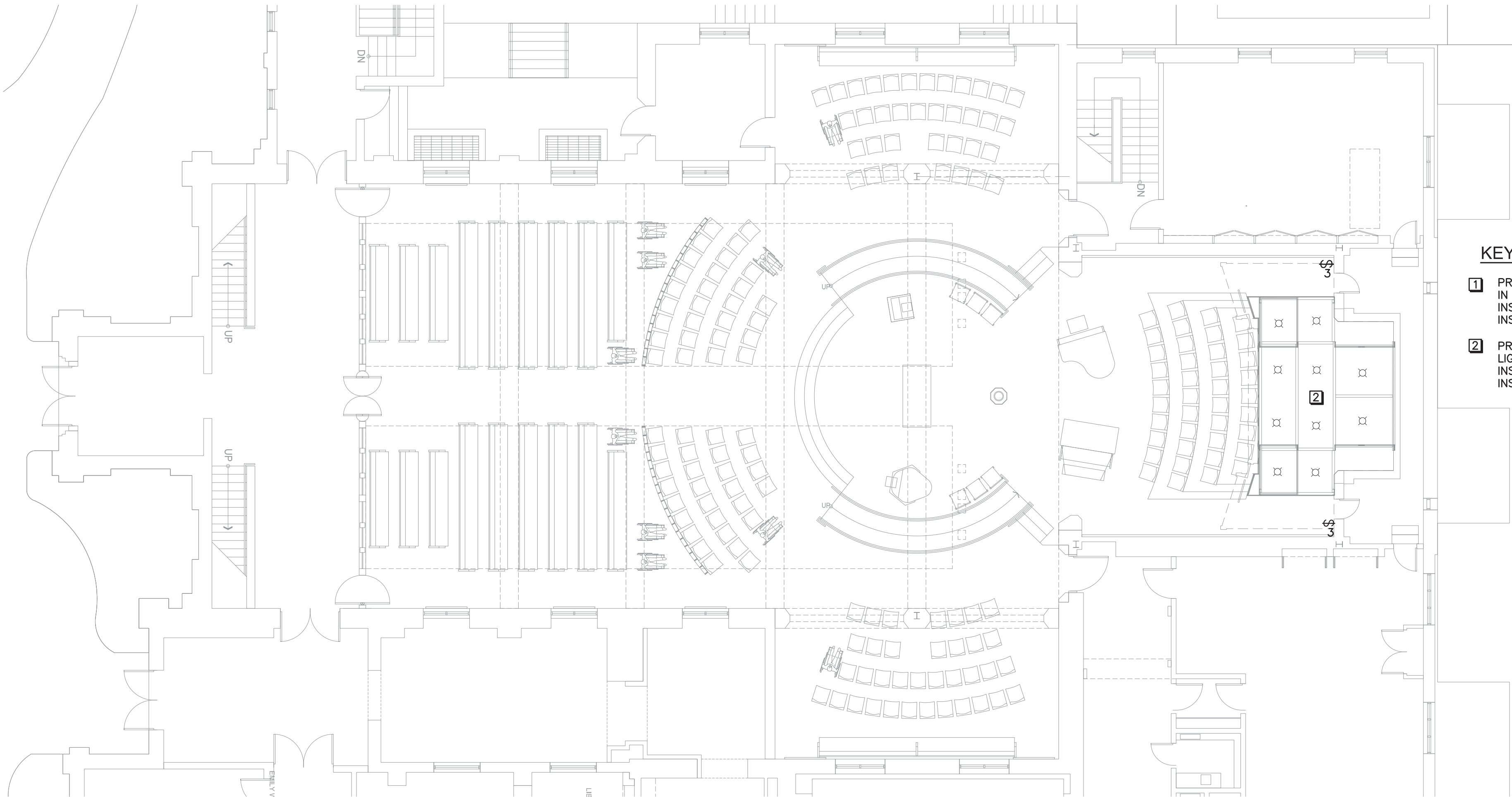
DRAWING NO.

E1

KGA PROJECT NO. 1103.03



BALCONY LEVEL
2
E2
LIGHTING PLAN - BASE BID
SCALE: 1/8" = 1'-0"



MAIN LEVEL
1
E2
LIGHTING PLAN
SCALE: 1/8" = 1'-0"

KEYED LIGHTING NOTES

- 1 PROVIDE CIRCUITING FOR TWO (2) WORK LIGHTS IN CHANCEL BLOWER ROOM TO BE PROVIDED, INSTALLED AND LOCATED BY ORGAN INSTALLATION CREW CHIEF.
- 2 PROVIDE CIRCUITING FOR TEN (10) WORK LIGHTS INSIDE ORGAN CASE TO BE PROVIDED, INSTALLED AND LOCATED BY ORGAN INSTALLATION CREW CHIEF.



3-14-2014



FIRST
PRESBYTERIAN CHURCH
SANCTUARY RENOVATION

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

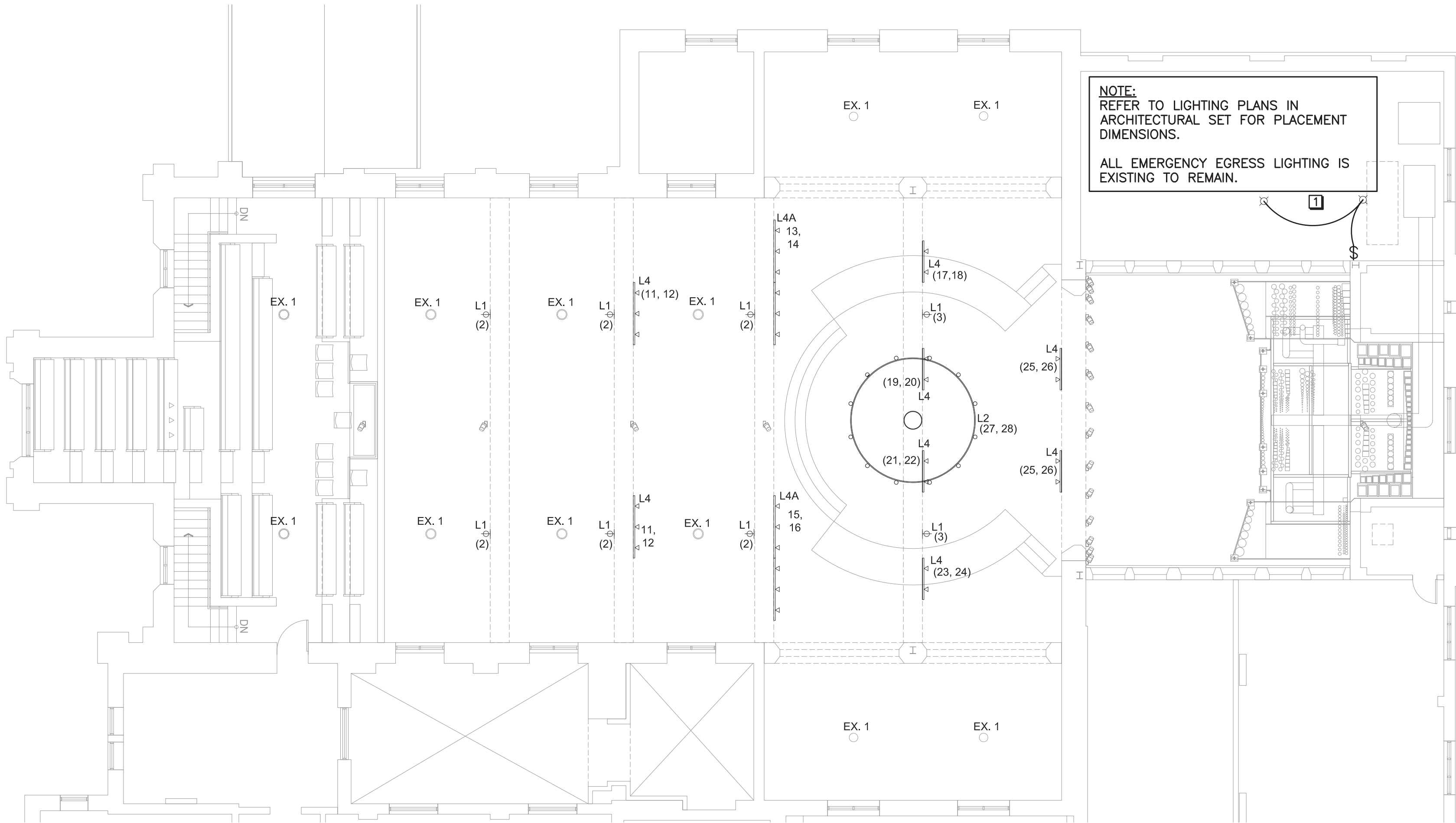
100% DESIGN DEVELOPMENT SET	13 DEC 2013
FOR BID / PERMIT	6 MAR 2014
PERMIT PACKAGES	14 MAR 2014

CONSTRUCTION DOCUMENTS PHASE
LIGHTING PLANS
BASE BID

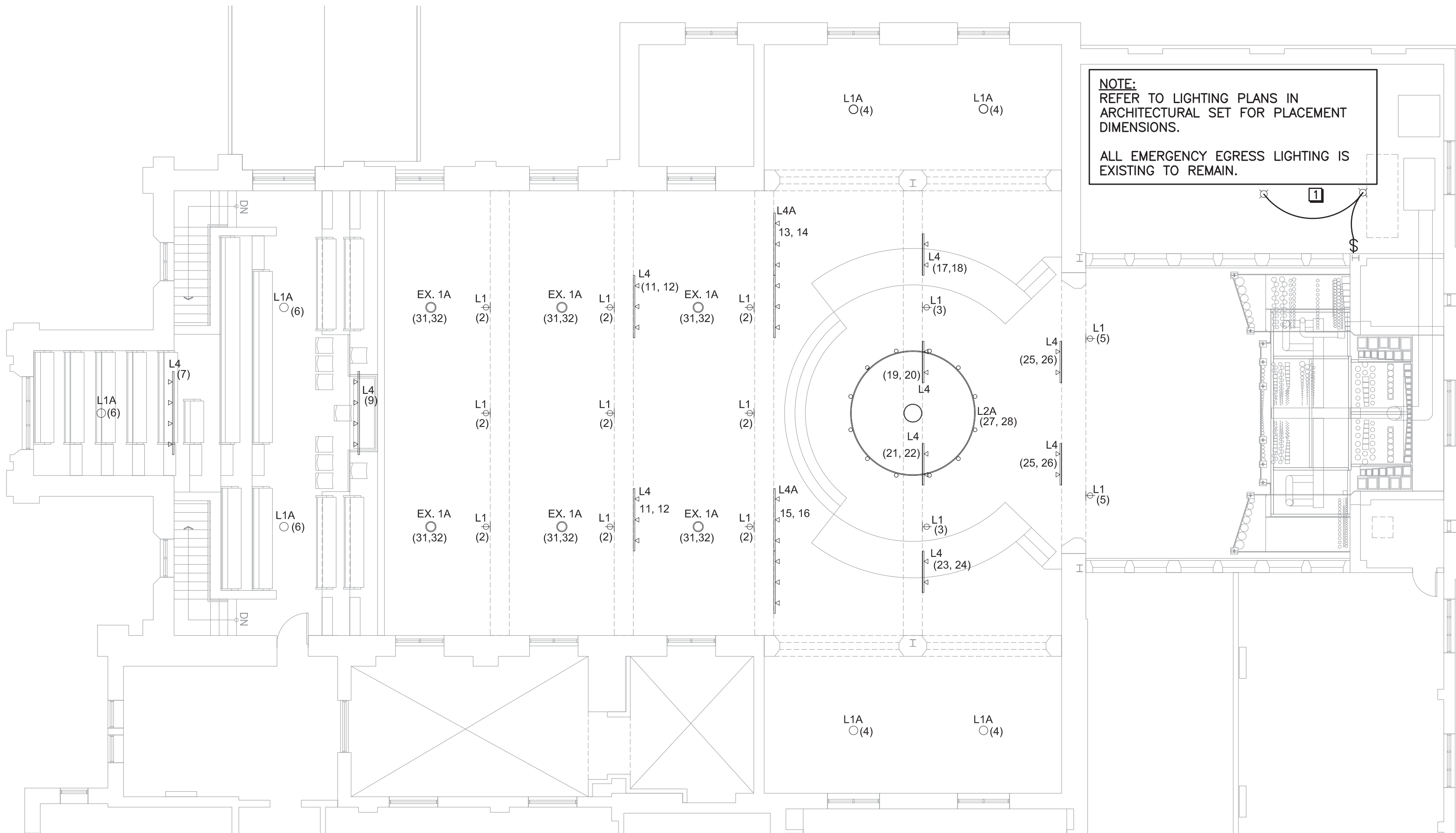
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E2

KGA PROJECT NO. 1103.03



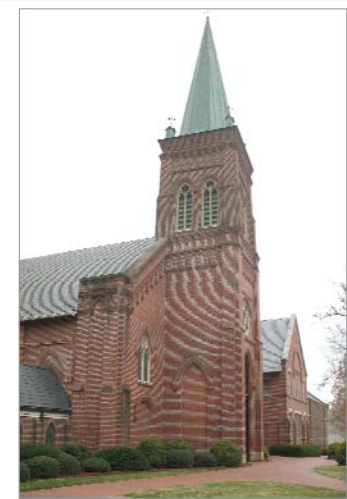
1 LIGHTING PLAN - ALT 4A
E3 SCALE: 1/8" = 1'-0"



2 LIGHTING PLAN - ALT 4B
E3 SCALE: 1/8" = 1'-0"



3-14-2014



**FIRST
PRESBYTERIAN CHURCH
SANCTUARY RENOVATION**

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

100% DESIGN DEVELOPMENT SET	13 DEC 2013
FOR BID / PERMIT	6 MAR 2014
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**LIGHTING PLANS
ALT 4A & 4B**

DRAWING NO.

E3

KGA PROJECT NO. 1103.03



100% DESIGN DEVELOPMENT SET	13 DEC 2013
FOR BID / PERMIT	6 MAR 2014
PERMIT PACKAGES	14 MAR 2014

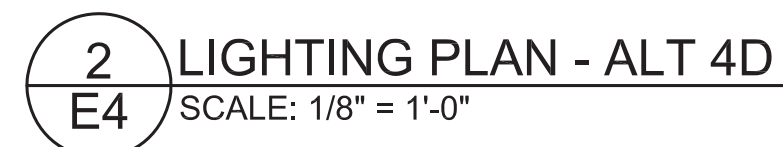
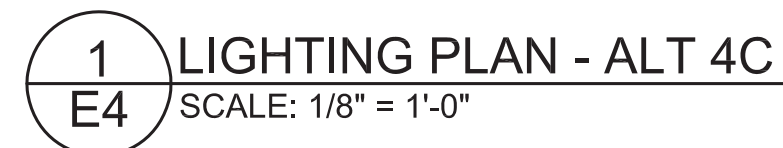
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LIGHTING PLANS
ALT 4C & 4D

DRAWING NO.

E4

KGA PROJECT NO. 1103.03



ARCHITECTURAL LIGHTING FIXTURE SCHEDULE

PROJECT: FIRST PRESBYTERIAN - ASHEVILLE, NC

PROJECT #:

DATE: 03/10/14

REVISION:

NOTES

1

SHOULD THE CONTRACTOR WISH TO HAVE PRODUCTS OTHER THAN THOSE SPECIFIED CONSIDERED, THE ITEMS MUST BE SUBMITTED 14) DAYS IN ADVANCE OF THE BID. FAILURE TO SUBMIT WITHIN THAT DEADLINE CONSTITUTES A GUARANTEE THAT THE SPECIFIED PRODUCTS WILL BE SUPPLIED.

2

CONTRACTOR SHALL PROVIDE A COMPLETE LIST OF ALL LAMPS WHICH WILL BE FURNISHED ON THE PROJECT. THIS LIST SHALL BE ORGANIZED ALPHABETICALLY BY LUMINAIRE TYPE INDICATED ON THE LUMINAIRE SCHEDULE, AND INCLUDE THE MANUFACTURER AND EXACT MODEL ORDERING CODE OF EACH LAMP.

3

THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL 10% OF ALL LAMPS LISTED AT PROJECT TURN OVER. LAMPS ARE FOR SPARE REPLACEMENT LAMPS. LIST OF SPARE LAMPS TO BE INCLUDED IN SUBMITTAL DOCUMENTATION.

4

ALL EMERGENCY AND EXIT LIGHTING SHALL BE DESIGNED AND SPECIFIED BY THE ELECTRICAL ENGINEER

5

CONFIRM WITH ARCHITECT THE EXACT MOUNTING HEIGHT AFF

6

CONTRACTOR MUST PROVIDE UNIT PRICING TO THE ARCHITECT- FOR EACH FIXTURE TYPE COMPLETE WITH ALL ACCESSORIES AND LAMP.

FIXTURE TYPE	DESCRIPTION	LAMP	MANUFACTURER	CATALOG NUMBER	SYSTEM WATTS	VOLTS	CONE	APER SIZE	MOUNTING			NOTES
									SURFACE FINISH	RECESS	DEPTH	
EX1	EXISTING PENDANTS.	PHILIPS19A21/2700-WHT DIM 8/1 25,000 HRS. 1680 LUM, 2700K	BLACK MOUNTAIN IRON WORKS		38	BYEE	NA	NA	×			EXISTING FIXTURE SHALL BE REFURBISHED REWIRED, AND RELAMPED. FIXTURE CONSISTS OF AN ORIGINAL CYLINDER AND A HORIZONTAL RING. ATTACHED AT A LATER DATE, AT MULTIPLE WELD POINTS. HORIZONTAL RING SHALL BE REMOVED, KEEPING ORIGINAL CYLINDER INTACT TO BE REUSED IN THE EXISTING LOCATIONS. CUTS AT WELD POINTS SHALL BE PROPERLY REPAIRED TO MINIMIZE VISIBLE DAMAGE. -BASE BID
EX1A	PENDANTS FOR TASK LIGHTING	PHILIPS19A21/2700-WHT DIM 8/1 25,000 HRS. 1680 LUM, 2700K	BLACK MOUNTAIN IRON WORKS		38	BYEE	NA	NA	×			LED FIXTURE TO MATCH FEATURES OF ORIGINAL EXSTING PENDANTS CONSISTING OF TINTED CYLINDER PENDANT WITH IRON DETAILING -BID ALTERNATE NO. 4B
L1	HIGH OUTPUT LED CYLINDER - TRUSS MOUNTED	126W, 9000 LUMENS, 3000K, 50,000 HRS LED INCLUDED	PRESCOLITE HUBBELL	MC10LEDS9L30KMD2SS	126W	BYEE	NA	NA	×			PROVIDE WITH FABRICATED SIDE MOUNTING ARM 0 - 10V DIMMING. CONFIRM FINISH -BID ALT. NO. 4A INCLUDE 6 FIXTURES ABOVE NAVE SEATING NOTED CIRCUITS #2. FOR BID ALT. NO. 4B INCLUDE REMAINING FIXTURES ABOVE EXTENDED CHANCEL AND CENTER OF NAVE NOTED CIRCUITS #2 AND #3
L1 ALT 1	HIGH OUTPUT LED CYLINDER - WALL MOUNTED	100W, 90 CRI 50,000 HR 3000K, 7085 DELIVERED LUMEN, LED INCLUDED	CREE	ESA C10 NDSW 56 D U BK SSGC C 30K	100W	BYEE	NA	NA	×			0 - 10V DIMMING, CONFIRM FINISH
L1 ALT 2	HIGH OUTPUT LED CYLINDER - WALL MOUNTED	95W, 85 CRI 50,000 HR 3000K 6367 DELIVERED LUMENS, LED INCLUDED	GOTHAM	ICOCYL 30/60 6AR LD 20 WM DBL	95W	BYEE	NA	NA	×			0 - 10V DIMMING - CONFIRM ONBOARD SENSOR REQUIREMENTS, CONFIRM FINISH
L1A	HIGH OUTPUT LED CYLINDER - PENDANT MOUNTED	126W, 9000 LUMENS, 3000K, 50,000 HRS LED INCLUDED	PRESCOLITE HUBBELL	MC10LEDP9L30KMD2SS	126W	BYEE	NA	NA	×			PROVIDE WITH FABRICATED SIDE MOUNTING ARM 0 - 10V DIMMING. CONFIRM FINISH -BID ALT. NO. 4B INCLUDE ALL PENDANT MOUNTED L1A FIXTURES NOTED CIRCUITS #4 AND #6
L1A ALT 1	HIGH OUTPUT LED CYLINDER - PENDANT MOUNTED	100W, 90 CRI 50,000 HR 3000K, 7085 DELIVERED LUMEN, LED INCLUDED	CREE	ESA C10 NDP 56 D U BK SSGC C 30K	100W	BYEE	NA	NA	×			0 - 10V DIMMING, CONFIRM FINISH
L1A ALT 2	HIGH OUTPUT LED CYLINDER - PENDANT MOUNTED	95W, 85 CRI 50,000 HR 3000K 6367 DELIVERED LUMENS, LED INCLUDED	GOTHAM	ICOCYL 30/60 6AR LD 20 PM DBL	95W	BYEE	NA	NA	×			0 - 10V DIMMING - CONFIRM ONBOARD SENSOR REQUIREMENTS, CONFIRM FINISH
L2	STANDARD WROUGHT IRON 12' DIAM ROUND WITH AMBER GLASS CYLINDERS ON APPROX 3' SPACING.	ASSUME 12 LIGHTED CYLINDERS EACH WITH 15W LED LAMPS.	NEIDHARDT	BENTFIELD LT51-B	TBD ASSUME 1200W	BYEE	NA	NA	X			CONFIRM MOUNTING HEIGHT. PROVIDE WITH MECHANICAL WINCH ASSEMBLY TO RAISE AND LOWER FIXTURE ELECTRICALLY. SOCKETS SHALL BE LABELED AS MAXIMUM 25W. CONFIRM LED DIMMING PROTOCOL. -BASE BID NOTED CIRCUITS #27 AND #28
L2A	CUSTOM DECORATIVE CHANDELIER- WROUGHT IRON 12' DIAM ROUND WITH AMBER GLASS CYLINDERS ON APPROX 3' SPACING.	ASSUME 12 LIGHTED CYLINDERS EACH WITH 15W LED LAMPS.	BLACK MOUNTAIN IRON WORKS	TBD	TBD ASSUME 1200W	BYEE	NA	NA	X			CONFIRM MOUNTING HEIGHT. PROVIDE WITH MECHANICAL WINCH ASSEMBLY TO RAISE AND LOWER FIXTURE ELECTRICALLY. SOCKETS SHALL BE LABELED AS MAXIMUM 25W. CONFIRM LED DIMMING PROTOCOL. -BID ALT. NO. 4B UPGRADE CHANDELIER L2A CIRCUITS #27 AND #28 INCORPORATING EXISTING PENDANTS INTO CUSTOM DESIGN
L3	UPLIGHT	10,000 LUMEN, 134W, 50,000 HOUR LED INCLUDED	REBELLE	6001 134L 16 3K DIM BM	134W	BYEE	NA	NA	X			0 - 10V DIMMING. CONFIRM FINISH. CONFIRM MOUNTING HEIGHT. -BID ALT. NO. 4C INCLUDE L3 CIRCUIT NOTED #1
L3 ALT 1	UPLIGHT	6,003 LUMEN, 70W, 50,000 HOUR LED INCLUDED	COOPER	WL IN C B03 A1 30K UNV K RC D10	70W	BYEE	NA	NA	X			0 - 10V DIMMING. CONFIRM FINISH. CONFIRM MOUNTING HEIGHT.
L3 ALT 2	UPLIGHT											
L4	TRACK/TRACK HEADS WITH 1 ED REPLACEMENT LAMPS	PHILIPS 19.5W, 15DEG, 10,000 CD, 3000K	PRESCOLITE	AKT BLACK SERIES TRACK/AKTGP38BL TRACK HEADS WITH 120W CURRENT LIMITER	19.5W	BYEE	NA	NA	X			CONFIRM TRACK LENGTHS AND FINISHES. PROVIDE ALL CONNECTIONS AND HARDWARE NECESSARY FOR A COMPLETE AND WORKING SYSTEM. -BID ALT. NO. 4A INCLUDE L4 FIXTURES ABOVE EXTENDED CHANCEL NOTED CIRCUITS #17, 19, 21, 23, 25 AND 26. FOR BID ALT. NO. 4C INCLUDE L4 FIXTURES NOTED CIRCUITS #7, 8, 9, 10, 16, 20, 22, 24 AND #30
L4 ALT 1	TRACK/TRACK HEADS WITH LED REPLACEMENT LAMPS	PHILIPS 19.5W, 15DEG, 10,000 CD, 3000K	JUNO	TEK BL SERIES TRACK/T404BL TRACK HEADS WITH 120W CURRENT LIMITER	19.5W	BYEE	NA	NA	X			CONFIRM TRACK LENGTHS AND FINISHES. PROVIDE ALL CONNECTIONS AND HARDWARE NECESSARY FOR A COMPLETE AND WORKING SYSTEM.
L4 ALT 2	TRACK/TRACK HEADS WITH LED REPLACEMENT LAMPS	PHILIPS 19.5W, 15DEG, 10,000 CD, 3000K	HALO	L46 MB SERIES TRACK/L1738 MB TRACK HEADS WITH 120W CURRENT LIMITER	19.5W	BYEE	NA	NA	X			CONFIRM TRACK LENGTHS AND FINISHES. PROVIDE ALL CONNECTIONS AND HARDWARE NECESSARY FOR A COMPLETE AND WORKING SYSTEM.
L4A	TRACK/TRACK HEADS WITH LED REPLACEMENT LAMPS	PHILIPS 19.5W, 15DEG, 10,000 CD, 3000K	PRESCOLITE	AKT BLACK SERIES TRACK/AKTGP38BL TRACK HEADS WITH 240W CURRENT LIMITER	19.5W	BYEE	NA	NA	X			CONFIRM TRACK LENGTHS AND FINISHES. PROVIDE ALL CONNECTIONS AND HARDWARE NECESSARY FOR A COMPLETE AND WORKING SYSTEM. -BID ALT. NO. 4A INCLUDE L4A FIXTURES ABOVE EXTENDED CHANCEL NOTED CIRCUITS #13 AND #15. FOR BID ALT. NO. 4C INCLUDE L4A FIXTURES NOTED CIRCUITS #11, 12, 14, 16 AND #29
L4A ALT 1	TRACK/TRACK HEADS WITH LED REPLACEMENT LAMPS	PHILIPS 19.5W, 15DEG, 10,000 CD, 3000K	JUNO	TEK BL SERIES TRACK/T404BL TRACK HEADS WITH 240W CURRENT LIMITER	19.5W	BYEE	NA	NA	X			CONFIRM TRACK LENGTHS AND FINISHES. PROVIDE ALL CONNECTIONS AND HARDWARE NECESSARY FOR A COMPLETE AND WORKING SYSTEM.
L4A ALT 2	TRACK/TRACK HEADS WITH LED REPLACEMENT LAMPS	PHILIPS 19.5W, 15DEG, 10,000 CD, 3000K	HALO	L46 MB SERIES TRACK/L1738 MB TRACK HEADS WITH 240W CURRENT LIMITER	19.5W	BYEE	NA	NA	X			CONFIRM TRACK LENGTHS AND FINISHES. PROVIDE ALL CONNECTIONS AND HARDWARE NECESSARY FOR A COMPLETE AND WORKING SYSTEM.

HARTRANFT LIGHTING DESIGN			DIMMER SCHEDULE (SEE SEPARATE DIMMER SPECIFICATIONS)			
PROJECT		FIRST PRESBYTERIAN CHURCH		PROJECT #		DATE: 031014
DATE: 031014						
ZONE		OPEN OFFICE		REVISION:		
ZONE: NO	FIXTURE TYPE	DESCRIPTION		WATTS/ FIXTURE	QTY.	TOTAL LOAD
BID TYPE						
SANCTUARY						
1	L3	LED UPLIGHT		134	10	
BID ALT. #4C						
2	L1	LED CYLINDER		126	9	
BID ALT. #4A						
3	L1	LED CYLINDER		126	2	
BID ALT. #4A						
4	L1A	LED CYLINDER		126	4	
BID ALT. #4B						
5	L1	LED CYLINDER		126	2	
BID ALT. #4B						
6	L1A	LED CYLINDER		126	6	
BID ALT. #4B						
7	L4	CURRENT LIM TRACK				120W
BID ALT. #4C						
8	L4	CURRENT LIM TRACK				120W
BID ALT. #4C						
9	L4	CURRENT LIM TRACK				120W
BID ALT. #4C						
10	L4	CURRENT LIM TRACK				120W
BID ALT. #4C						
11	L4A	CURRENT LIM TRACK				240W
BID ALT. #4C						
12	L4A	CURRENT LIM TRACK				240W
BID ALT. #4C						
13	L4A	CURRENT LIM TRACK				240W
BID ALT. #4A						
14	L4A	CURRENT LIM TRACK				240W
BID ALT. #4C						
15	L4A	CURRENT LIM TRACK				240W
BID ALT. #4A						
16	L4A	CURRENT LIM TRACK				240W
BID ALT. #4C						
17	L4	CURRENT LIM TRACK				120W
BID ALT. #4A						
18	L4	CURRENT LIM TRACK				120W
BID ALT. #4C						
19	L4	CURRENT LIM TRACK				120W
BID ALT. #4A						
20	L4	CURRENT LIM TRACK				120W
BID ALT. #4C						
21	L4	CURRENT LIM TRACK				120W
BID ALT. #4A						
22	L4	CURRENT LIM TRACK				120W
BID ALT. #4C						
23	L4	CURRENT LIM TRACK				120W
BID ALT. #4A						
24	L4	CURRENT LIM TRACK				120W
BID ALT. #4C						
25	L4	CURRENT LIM TRACK				120W
BID ALT. #4A						
26	L4	CURRENT LIM TRACK				120W
BID ALT. #4A						
27	L2	CHANDELIER				TBD
BASE BID						
28	L2	CHANDELIER				TBD
BASE BID						
29	L4A	CURRENT LIM TRACK				240W
BID ALT. #4C						
30	L4	CURRENT LIM TRACK				120W
BID ALT. #4C						
31	EX1	EX PENDANT UPLIGHT - LED RE		100	6	600
BASE BID						
32	EX1	EX PENDANT DOWNLIGHT - LED RE		100	6	600
BASE BID						

ELECTRICAL BID ALTERNATES:

BID ALTERNATE NO. 3 – REPLACE ELECTRICAL PANELS AND BRANCH CIRCUITS. The Base Bid shall include the existing electrical system to remain, with a modest number of additional circuits to accommodate added outlets and light fixtures as well as the organ equipment. As a Bid Alternate, remove and replace the existing electrical panels, branch circuits and wiring serving the Worship Space.

BID ALTERNATE NO. 4: A64 UPGRADE LIGHT FIXTURES. The Base bid shall include rebuilding/re wiring/ reaming/ installing the existing Pendant Fixtures (Type EX1), adding a Chancel Chandelier (Type L2, noted as Circuits #27 and #28) with a raising/lowering device and a basic control system (see #40 below). As a Bid Alternate, add limited light fixtures as follows:

1. Truss Mounted Fixtures (Type L1 and L1A) above the Nave/Choir (8 total), noted as Circuit #2 and #3.
2. Track Light Fixtures (Type L4 and L4A) above/below the Extended Chancel area noted as Circuits #13, 17, 19, 21, 23, 25, and 26 (all other existing light fixtures to remain).
3. Expand the Lightifier MultiSet Pro dimming controls to support the upgrade (See 40 Below).

BID ALTERNATE NO. 4B – UPGRADE CHANDELIER In lieu of refitting the existing pendant fixtures (EX1) and adding the Chandelier (Type L2) included in the Base Bid:

1. Upgrade the Chandelier to a custom fixture (Type L2A), incorporating existing pendants, and
2. Remove/replace existing pendants (Type EX1) with LED pendant fixtures (Type EX1A), and
3. Add the remaining Truss-Mounted Fixtures (Type L1) noted as Circuits #2, #3, and #5) and all Pendant Mounted Fixtures (Type L1A) noted as Circuits #4 and #6), and
4. Expand the Lightolier MultiSet Pro dimming controls to support the upgrade (See 4D Below).

BID ALTERNATE NO. 4C – ADD FULL LIGHT FIXTURE PACKAGE. In addition to the scope indicated in 4B above, add the remaining light fixtures as indicated (Type L3 noted Circuit #1, Type L4 and L4A noted Circuits #7, 8, 9, 10, 11, 12, 14, 16, 18, 20, 22, 24, 29, 30), including expansion of the Lightolier MultiSet Pro dimming system to support the upgrade (see 4D below).

BID ALTERNATE NO. 4D – UPGRADE LIGHTING CONTROL. The Base Bid shall include continued use of the existing dimming panel for existing fixtures, plus Lightlifter MultiSet Pro lighting control for Chandelier (L2); locate (i) the master controller in the same room; (ii) one Remote Station in the Chancel at the existing Lupton and (iii) one R/S at the south entry to the Nave. As a Bid Alternate, substitute the LUTRON LCP128 expandable dimming system instead of reusing the existing dimming system and extend the Lightlifter MultiSet Pro to include the appropriate number of modules to support the added circuits in each option and include wireless controls as follows: Master Controller at the AV/ stage, Remote Scene Selectors Chancel and south Nave Entry, and On/Off Stations at five additional locations as indicated.

BID ALTERNATE NO. 5A – RELOCATE A/V CONTROL STATION. Base bid shall include all infrastructure required for eventual installation of a full Audio/Visual package, including wiring, conduit, pull boxes, terminal boxes, integration of power/controls cabling in floor boxes, and other miscellaneous equipment as indicated. As a Bid Alternate, remove/relocate the existing audio controls location in the Balcony as indicated, install a Controls Desk as indicated and reconnect all existing equipment.

BID ALTERNATE NO. 5B – ADD AUDIO PACKAGE. Base bid shall include all infrastructure required for eventual installation of full Audio/Visual package as noted in Alternate 5A. As an Add Alternate, install upgraded/new audio equipment as indicated, including hearing loop, sound reinforcement, pickup locations, microphones, amplifiers, and all other related equipment which doesn't already exist.

K E R N S G R O U P
A R C H I T E C T S

105 NORTH MAPLE AVENUE,
SUITE 200 FALLS CHURCH,
VIRGINIA 22046-4713
TEL 703.528.1150 FAX 703.528.1151

O W N E R

FIRST PRESBYTERIAN CHURCH
40 CHURCH STREET
ASHEVILLE, NC 28801
828.253.1431 FAX 828.253.3192

STRUCTURAL ENGINEER

KLOESSEL ENGINEERING
8 MAGNOLIA AVENUE, SUITE 100
ASHEVILLE, NORTH CAROLINA 28801
TEL 828.250.0780 CEL 828.231.4910

M P E E N G I N E E R S

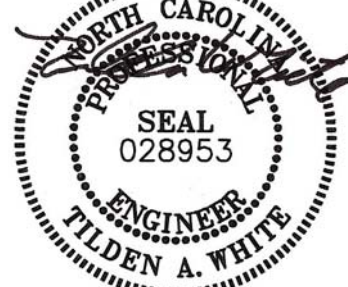
TILDEN WHITE & ASSOC.
351 MERRIMON AVENUE,
ASHEVILLE, NORTH CAROLINA 28801
TEL 828.255.4327

AUDIO VISUAL CONSULTANT

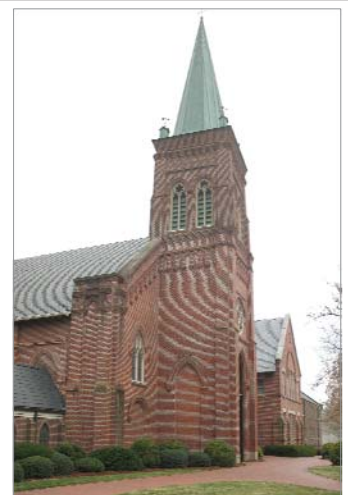
MILLER, BEAM & PAGANELLI, INC.
12040 SOUTH LAKES DRIVE, SUITE 104
RESTON, VIRGINIA 20191 TEL
703.506.0005 FAX 703.506.0009

LIGHTING CONSULTANT

HARTRANFT LIGHTING DESIGN
214 WEST TREMONT AVENUE
SUITE 500, CHARLOTTE, NC 28203
TEL 240. 731. 1058



3-14-2014



FIRST PRESBYTERIAN CHURCH SANCTUARY RENOVATION

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

100% DESIGN DEVELOPMENT SET	13 DEC 2013
FOR BID / PERMIT	6 MAR 2014
PERMIT PACKAGES	14 MAR 2014

CONSTRUCTION DOCUMENTS PHASE

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LIGHTING FIXTURE & DIMMER SCHEDULES

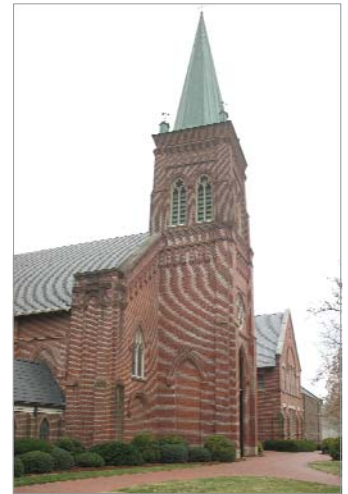
DRAWING NO.

E5

KGA PROJECT NO. 1103.03



3-14-2014



FIRST PRESBYTERIAN CHURCH SANCTUARY RENOVATION

40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

100% DESIGN DEVELOPMENT SET	13 DEC 2013
FOR BID / PERMIT	6 MAR 2014
PERMIT PACKAGES	14 MAR 2014

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POWER PLANS

DRAWING NO.

E6

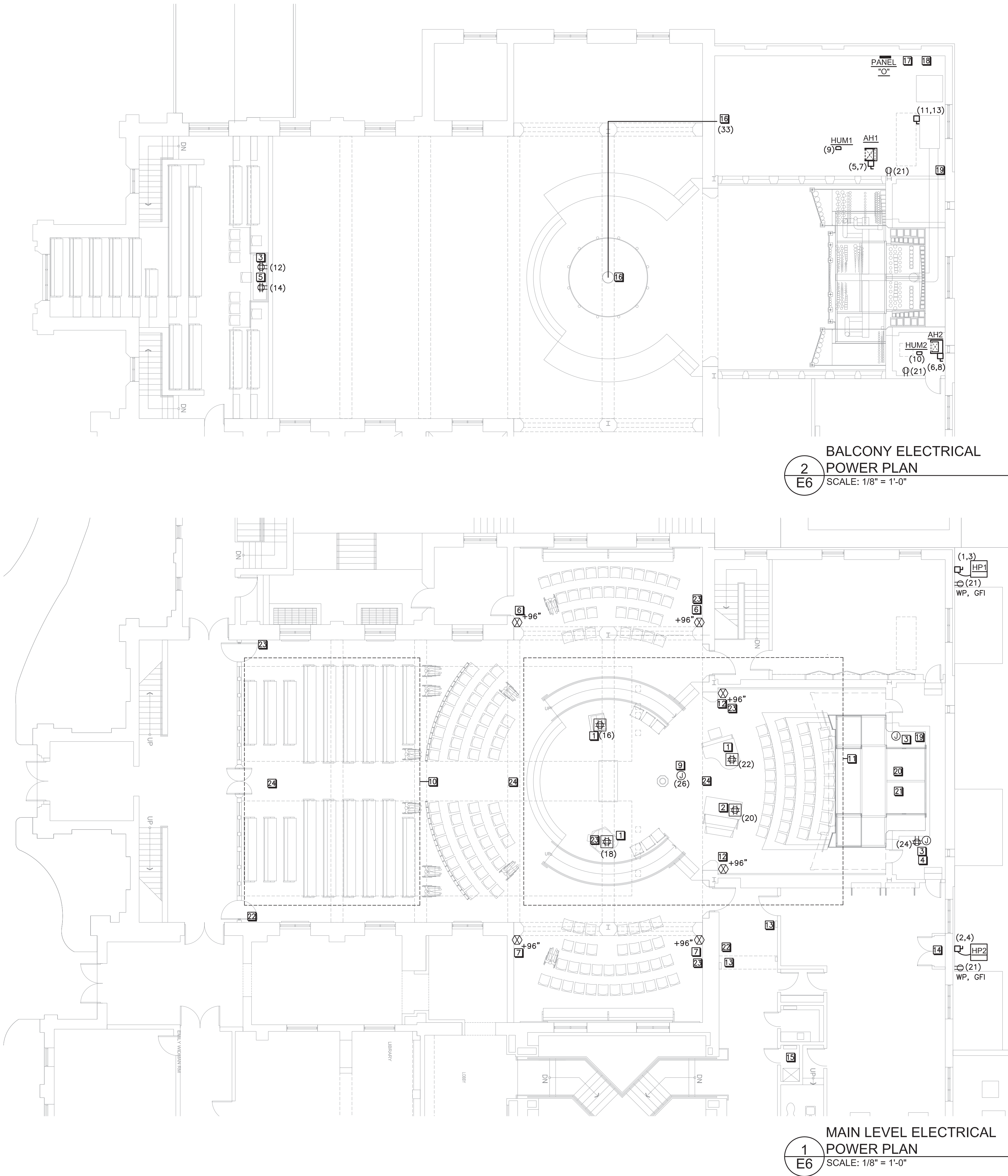
KGA PROJECT NO. 1103.03

GENERAL POWER NOTES

1. ROUTE ALL NEW CONDUITS IN CONCEALED LOCATIONS (NOT VISIBLE FROM INSIDE THE SANCTUARY). IF THIS BECOMES A CHALLENGE, COORDINATE WITH THE ARCHITECT AND ENGINEER TO HELP WORK OUT A SOLUTION.
2. EQUIPMENT ON THIS SHEET IS POWERED FROM NEW PANEL "O" AND CIRCUIT NUMBERS ARE IN PARENTHESIS.

KEYED POWER NOTES

- 1 A/V FLOOR BOX WITH DEDICATED 20A QUAD AC POWER OUTLET. FSR FL-540P (6' DEEP) OR EQUAL. INTERCONNECT ALL BOXES WITH (1) 1-1/2" CONDUIT FOR A/V. A/V CONDUIT TO HOME RUN TO A/V CONTROL DESK IN BALCONY (NOTE #5). PROVIDE CONDUIT FOR AC POWER AS REQUIRED.
- 2 AV/ORGAN FLOOR BOX WITH DEDICATED 20A QUAD AC POWER OUTLET. FSR FL-540P (6' DEEP) OR EQUAL. INTERCONNECT ALL BOXES WITH (1) 1-1/2" CONDUIT FOR A/V, AND (1) 1-1/2" CONDUIT FOR ORGAN. A/V CONDUIT TO HOME RUN TO A/V CONTROL DESK IN BALCONY (NOTE #5). ORGAN CONDUIT TO TERMINATE AS REQUIRED. PROVIDE CONDUIT FOR AC POWER AS REQUIRED.
- 3 A/V WALL RACK LOCATION. PROVIDE DEDICATED 20A QUAD AC OUTLET AT 60" AFF AND (1) 1-1/2" CONDUIT TO A/V CONTROL DESK IN BALCONY (NOTE #5).
- 4 FUTURE WALL SWITCH LOCATION FOR PROJECTION SCREEN. PROVIDE 1-GANG JUNCTION BOX AT 48" AFF WITH 3/4" CONDUIT TO FUTURE PROJECTION SCREEN LOCATION (NOTE #9).
- 5 RELOCATED A/V CONTROL DESK LOCATION. EXTEND ALL A/V CABLING FROM EXISTING LOCATION. PROVIDE (2) DEDICATED 20A QUAD AC OUTLETS.
- 6 NEW WALL MOUNTED SPEAKER AT APPROX. 8' AFF. INTERCONNECT BOTH LOCATIONS WITH 3/4" CONDUIT AND HOME RUN BACK TO A/V WALL RACK BEHIND CHANCEL (NOTE #3).
- 7 NEW WALL MOUNTED SPEAKER AT APPROX. 8' AFF. INTERCONNECT BOTH LOCATIONS WITH 3/4" CONDUIT AND HOME RUN BACK TO A/V WALL RACK BEHIND CHANCEL (NOTE #3).
- 8 SPEAKER LOCATION. PROVIDE 3/4" CONDUIT TO A/V CONTROL DESK IN BALCONY (NOTE #5).
- 9 FUTURE FLOOR MOUNTED PROJECTION SCREEN. PROVIDE HARD WIRED AC POWER AND 3/4" CONDUIT TO WALL SWITCH LOCATION (NOTE #4).
- 10 INDUCTION LOOP WIRING IN FLOOR. WIRING TO HOME RUN TO A/V CONTROL DESK IN BALCONY (NOTE #5). PROVIDE 3/4" PLASTIC CONDUIT FROM CONTROL DESK TO START OF LOOP AREA.
- 11 INDUCTION LOOP WIRING IN FLOOR BENEATH CHANCEL. WIRING TO HOME RUN TO A/V WALL RACK BEHIND CHANCEL (NOTE #3). PROVIDE 3/4" PLASTIC CONDUIT FROM WALL RACK TO START OF LOOP AREA.
- 12 NEW WALL MOUNTED SPEAKER AT APPROX. 8' AFF. INTERCONNECT BOTH LOCATIONS WITH 3/4" CONDUIT AND HOME RUN BACK TO A/V WALL RACK BEHIND CHANCEL (NOTE #3).
- 13 EXISTING 100A FUSE BOX TO REMAIN.
- 14 EXISTING 1200A 208/3Ø SWITCHGEAR TO REMAIN. CURRENTLY IT PROVIDES POWER FOR THE SANCTUARY LIGHTING AND DIMMER PANEL. REPLACE EXISTING DIMMING SYSTEM WITH NEW AND COORDINATE WITH ARCHITECTURAL SHEETS FOR LIGHTING AND DIMMING SPECIFICATIONS. ADD A NEW 200A 208/3Ø BREAKER TO SERVE NEW PANEL "O" LOCATED IN THE ORGAN BLOWER ROOM.
- 15 EXISTING LIGHTING CONTROL PANEL. REPLACE WITH NEW LIGHTING CONTROLS AS INDICATED IN ARCHITECTURAL SHEETS.
- 16 PROVIDE ALLADIN ALL300 LIFT FOR THE CHANDELIER. COORDINATE INSTALLATION WITH ARCHITECT AND MANUFACTURER'S REQUIREMENTS.
- 17 PROVIDE STARTER AND DISCONNECT FOR 3 HP BLOWER MOTOR. BLOWER STARTER COIL TO BE SWITCHED BY "ICE CUBE" RELAY WITH 12 VDC COIL. ORGAN BUILDER WILL CONNECT 12 VDC ORGAN WIRING TO ICE CUBE RELAY COIL. EC SHALL CONNECT STARTER TO ICE CUBE RELAY COIL. STUB IN ALL CONDUIT NOW AND COMPLETE DURING INSTALLATION. NOTE: ITEMS 17 & 18 ARE ALWAYS USED TOGETHER. THEY ARE CONTROLLED BY A COMMON 12 VDC KEYED START/STOP SWITCH LOCATED ON THE CONSOLE AND PROVIDED BY THE ORGAN BUILDER. START/STOP SWITCH TO ACTIVATE RELAY FOR ITEMS 2 AND 3.
- 18 PROVIDE 110V 20A DEDICATED SERVICE FOR ORGAN RECTIFIERS. RECTIFIERS TO BE LOCATED IN BLOWER ROOM. SERVICE TO TERMINATE IN DUPLEX RECEPTACLE SWITCHED BY ICE CUBE RELAY WITH 12 VDC COIL REFERENCED ABOVE IN NOTE 17. ORGAN BUILDER WILL CONNECT RECTIFIER TO ICE CUBE RELAY COIL. RECTIFIER WILL BE PROVIDED BY ORGAN BUILDER. STUB IN NOW AND COMPLETE DURING INSTALLATION. NOTE: ITEMS 17 & 18 ARE ALWAYS USED TOGETHER. THEY ARE CONTROLLED BY A COMMON 12 VDC KEYED START/STOP SWITCH LOCATED ON THE CONSOLE AND PROVIDED BY THE ORGAN BUILDER. START/STOP SWITCH TO ACTIVATE RELAY FOR ITEMS 2 AND 3.
- 19 PROVIDE ONE 1" CONDUIT FROM BLOWER ROOM TO BASE OF ORGAN FOR ORGAN CONTROL WIRING.
- 20 PROVIDE TEN (10) UNSWITCHED CONVENIENCE OUTLETS INSIDE ORGAN SPACES. STUB IN NOW AND COMPLETE DURING INSTALLATION.
- 21 PROVIDE CONDUIT AND WIRING FOR 6 LOW VOLUME FANS IN ORGAN CASE. FANS PROVIDED AND INSTALLED BY ORGAN BUILDER. STUB IN NOW AND COMPLETE WIRING DURING INSTALLATION.
- 22 BASE BID: ADD MULTISET REMOTE STATION AT EXISTING CONTROL LOCATION.
- 23 BID ALTERNATE #4D: PROVIDE ON/OFF SWITCH FOR LIGHTS.
- 24 BID ALTERNATE #4D: PROVIDE WIRELESS SENSORS AT CEILING TRUSSES AS REQUIRED.





40 CHURCH STREET
ASHEVILLE, NORTH CAROLINA 28801

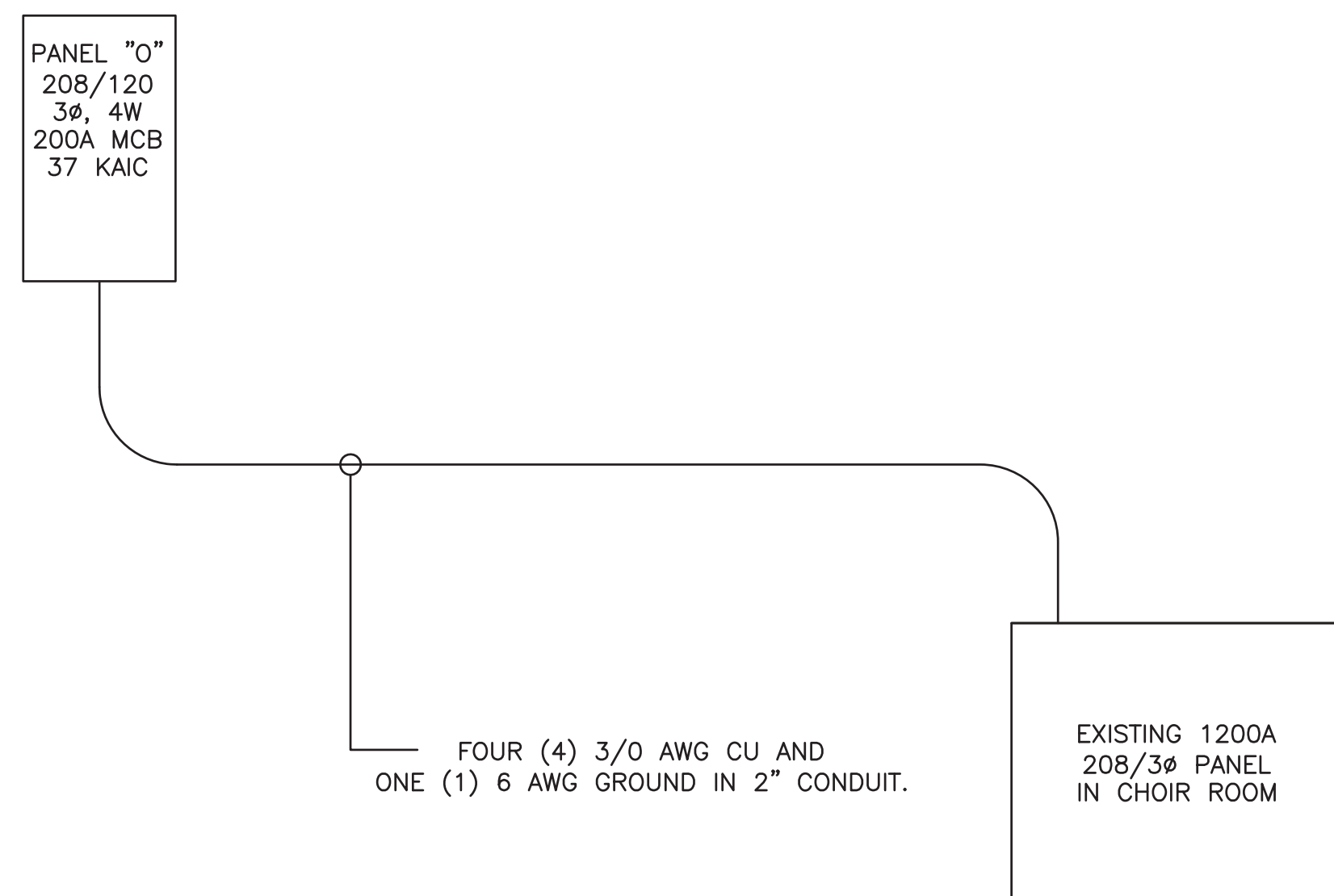
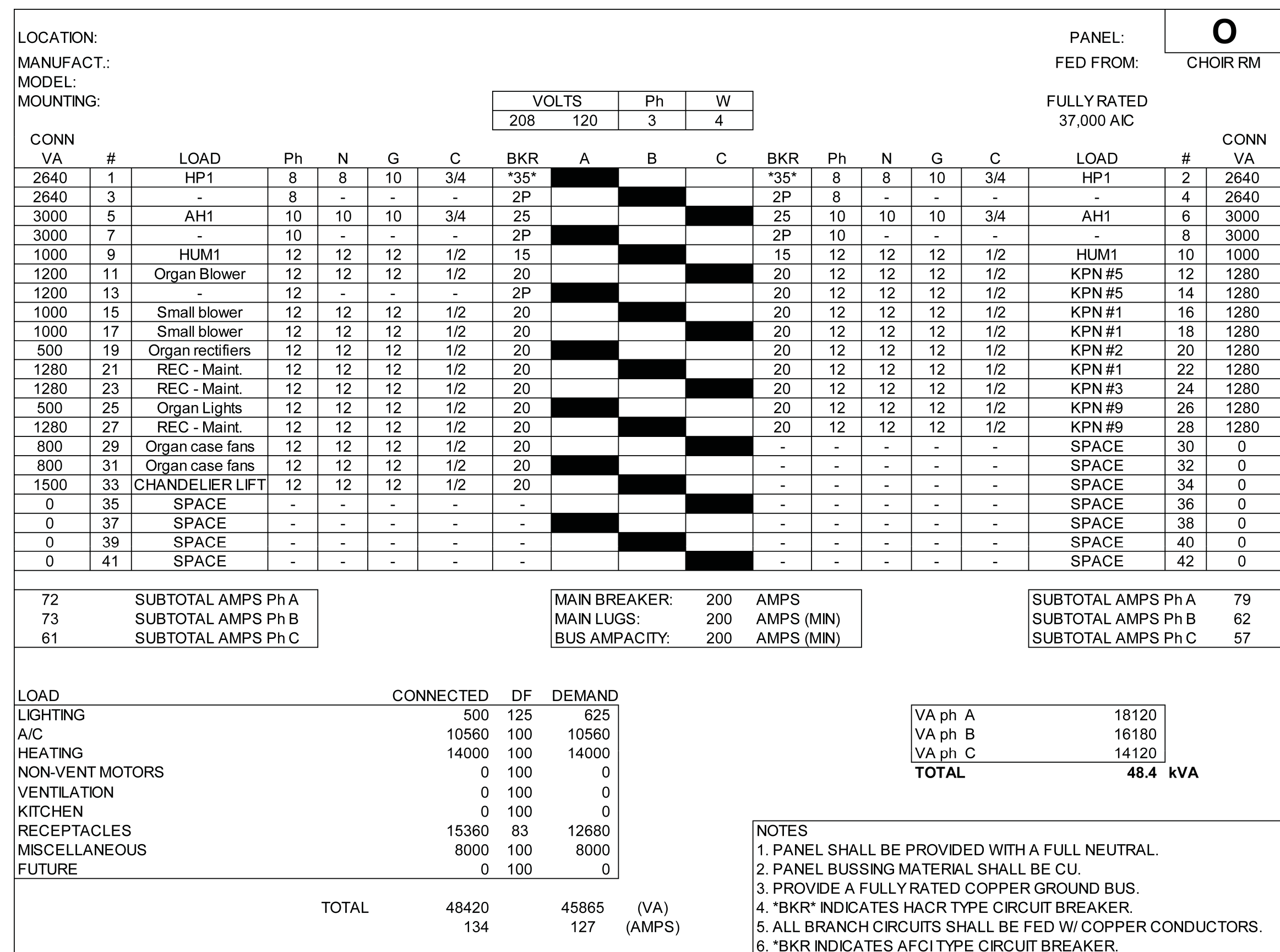
100% DESIGN DEVELOPMENT SET	13 DEC 2013
FOR BID / PERMIT	6 MAR 2014
PERMIT PACKAGES	14 MAR 2014

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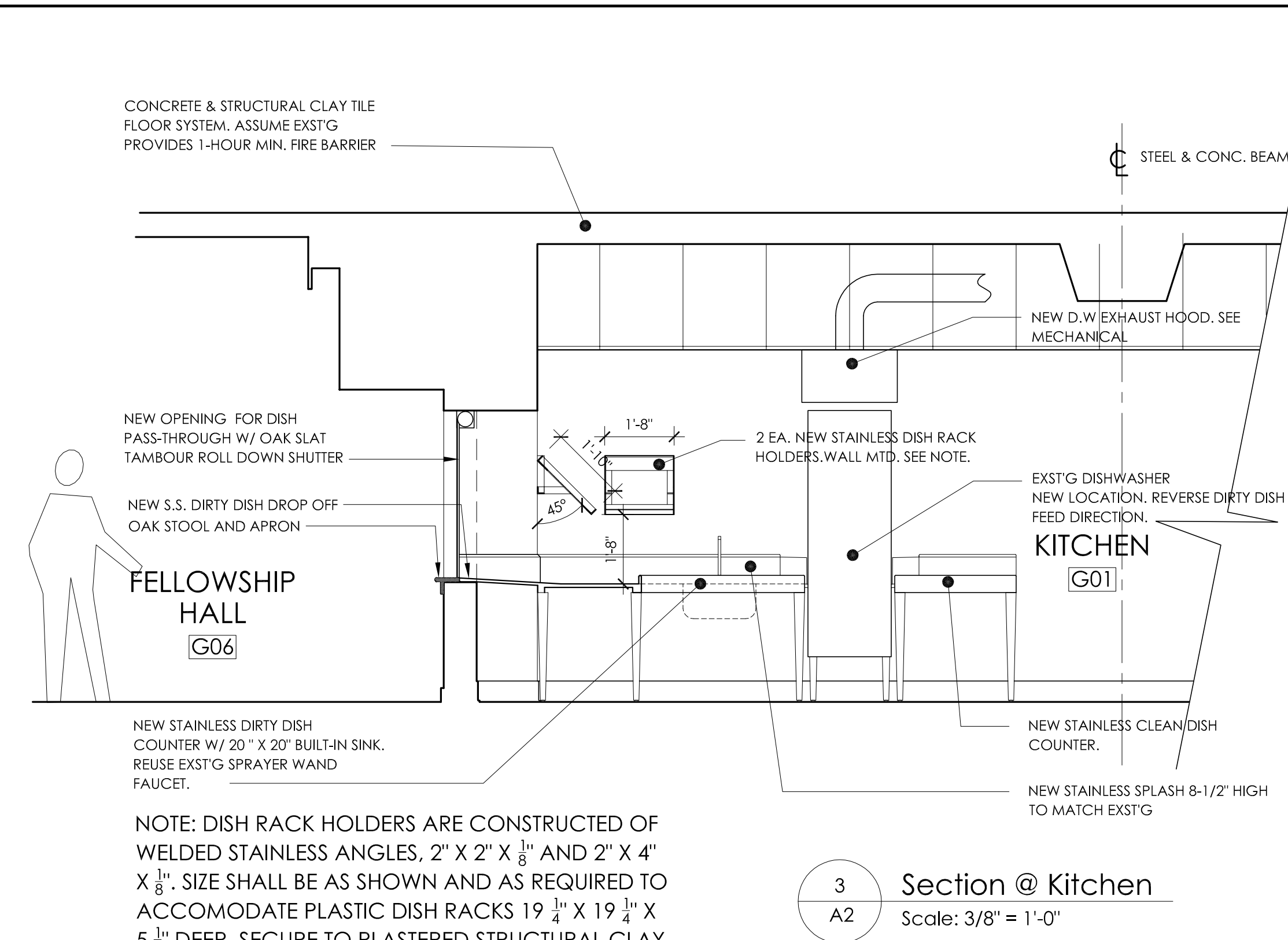
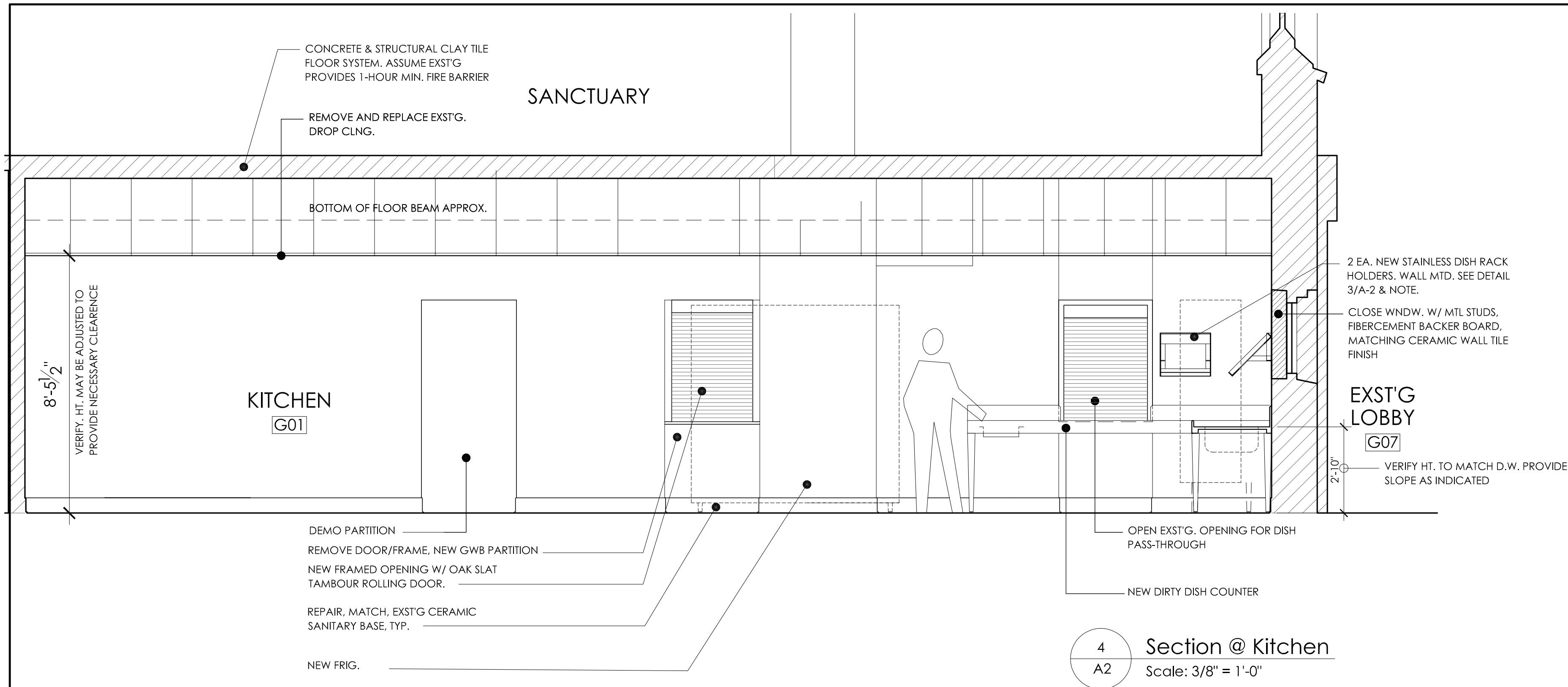
PANEL SCHEDULE AND
RISER DIAGRAM

E7

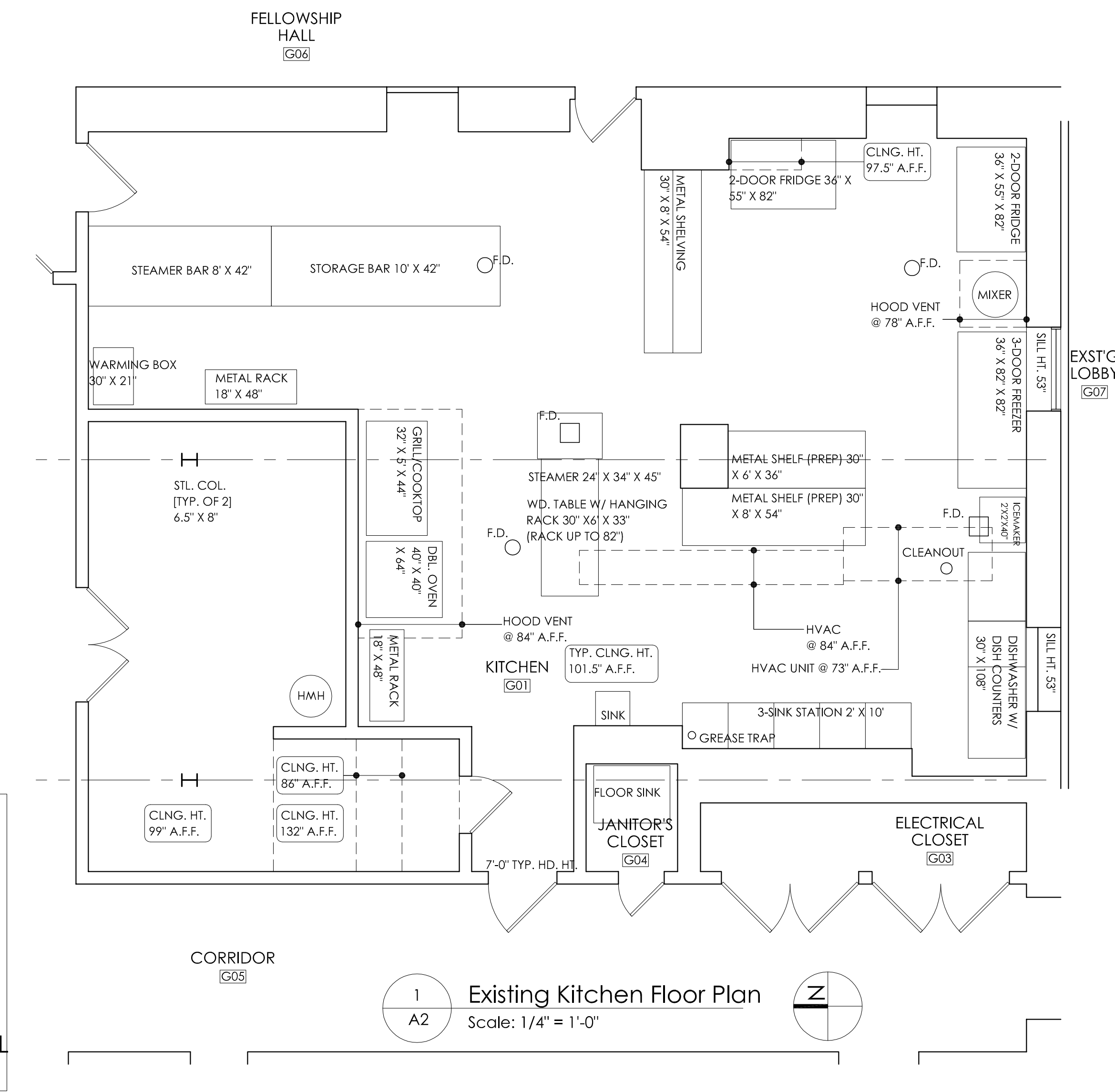
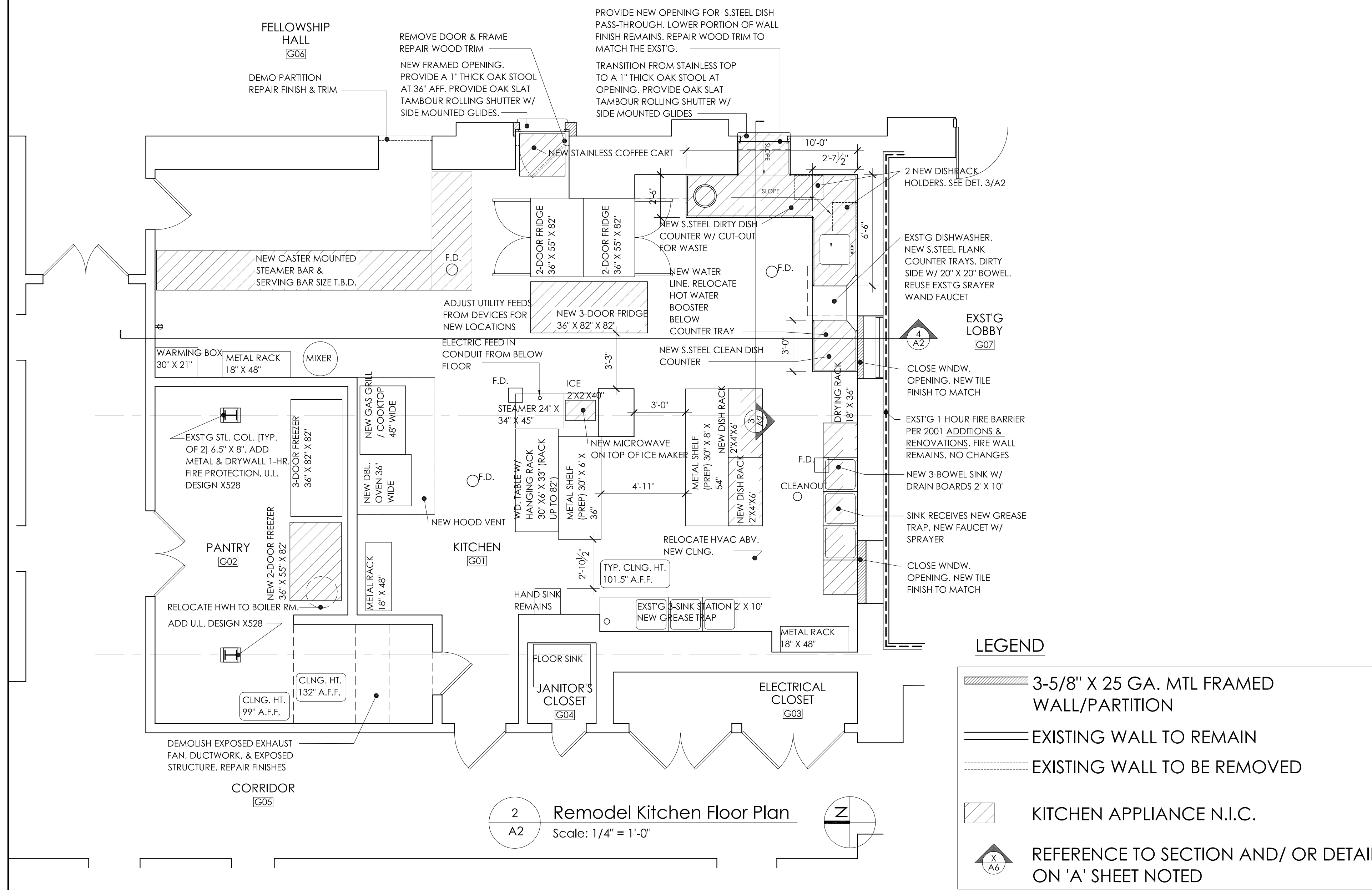
KGA PROJECT NO. 1103.03



1 POWER RISER DIAGRAM
E7 SCALE: NONE

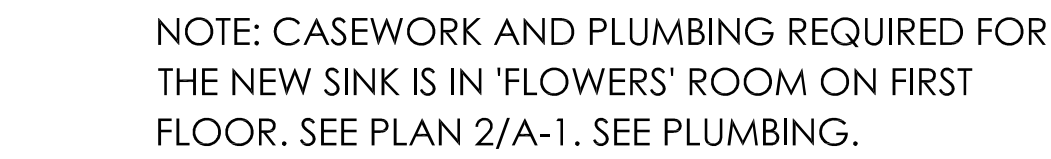
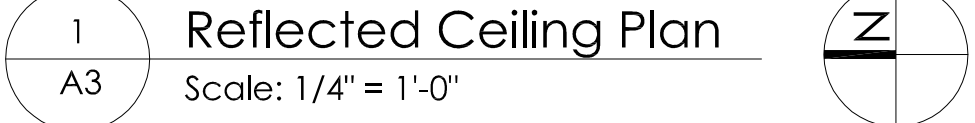


NOTE: DISH RACK HOLDERS ARE CONSTRUCTED OF WELDED STAINLESS ANGLES, 2" X 2" X 1/8" AND 2" X 4" X 1/8". SIZE SHALL BE AS SHOWN AND AS REQUIRED TO ACCOMMODATE PLASTIC DISH RACKS 19 1/4" X 19 1/4" X 5 1/2" DEEP. SECURE TO PLASTERED STRUCTURAL CLAY TILE WALLS WITH STAINLESS HOLLOW WALL ANCHORS.

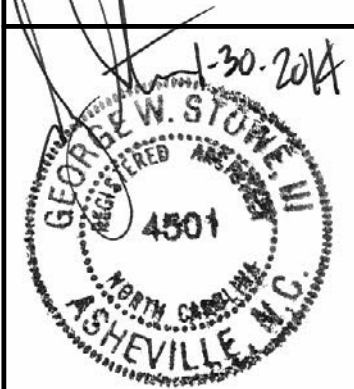


[illegible]

1. MATCH EXISTING WALL SURFACES IN FELLOWSHIP HALL AT REPAIR AREAS ONLY. PROTECT EXISTING FINISHES.



3 Section Flower Sink Cabinet
A3 Scale: 3/8" = 1'-0"



DATE:	01-14-2014
REVISIONS:	
REVISED	1-30-2014

FIRST PRESBYTERIAN CHURCH

Asheville, NC

40 Church St.

A3

PLUMBING LEGEND

Cold Water Piping Below Grade	
Cold Water (CW)	
Tempered Hot Water (TW)	
Tempered Hot Water Return (TWR)	
140°F Water (HW)	
140°F Water Return (HWR)	
Natural Gas Piping	
Sanitary Waste Piping	
Vent Piping	
Point of Connection (NEW)	
Floor Drain (FD)	
Floor Sink (FS)	
Floor Cleanout (FCO)	
Ball Valve	
Check Valve	
Air Admittance Valve (AAV)	
Mixing Valve	

PLUMBING NOTES

- All work and materials shall comply with the current North Carolina State Building Code and local codes and ordinances.
- Water piping above grade shall be type L hard copper. Water piping below grade shall be type K soft copper with no joints under slab. Joints shall be made with lead free solder up to 1" pipe size. Joints shall be made with silver brazing solder for pipe sizes 1-1/4" and larger.
- Above grade cold water and individual hot water runout piping shall be insulated with 1/2" thickness preformed fiberglass pipe insulation with all service jacket. Hot water mains and recirculation piping shall be insulated with 1" thick preformed fiberglass pipe insulation with all service jacket. All above grade piping in unheated areas shall be insulated with 2" thick preformed fiberglass pipe insulation with all service jacket. Provide foamglass insulation inserts and galvanized steel pipe shields at pipe supports. All above grade piping shall be routed within the thermal envelope.
- Sanitary and vent piping shall be service weight cast iron with hub and spigot joints with neoprene compression joints below grade; no-hub fittings may be used for above grade piping. Subject to local authority approval and provided that the ceiling is not used as a return air plenum, schedule 40 ASTM D-2665 PVC piping with PVC-DWV pattern solvent welded fittings may be substituted for cast iron piping.
- Grease piping shall be service weight cast iron with hub and spigot joints with neoprene compression joints below grade; no-hub fittings may be used for above grade piping. Grease piping shall be sloped minimum 1/4" per foot.
- Provide firestopping at all rated penetrations. Coordinate with GC.
- Gas piping shall be schedule 40 black steel with threaded and coupled joints. Paint gas piping with two coats of safety yellow oil based enamel paint.
- Provide connections to all kitchen equipment. Equipment will be supplied and set in place by the food service contractor. Faucets, drain outlets, etc. will be supplied and installed by the food service contractor. Provide the cold water, hot water, drain and gas piping to the equipment as detailed in the food service equipment supplier's detailed shop drawings. Coordinate the location of floor drains, floor sinks, plumbing fixtures, and equipment rough-ins with the detailed shop drawings.
- Warranty all work for a minimum of 1 year from date of acceptance by owner.

Tilden White & Associates, PLLC

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Asheville, NC 28801
(828) 255-4327 (ph)
www.tildenwhite.com



1371



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member, American Institute of Architects
184 East Chestnut Street • Asheville, NC 28801
ph 828-251-2357 • fax 828-225-0330
gstowearchitect@bellsouth.net
www.GeorgeStoweArchitect.com



DATE:
January 30, 2014

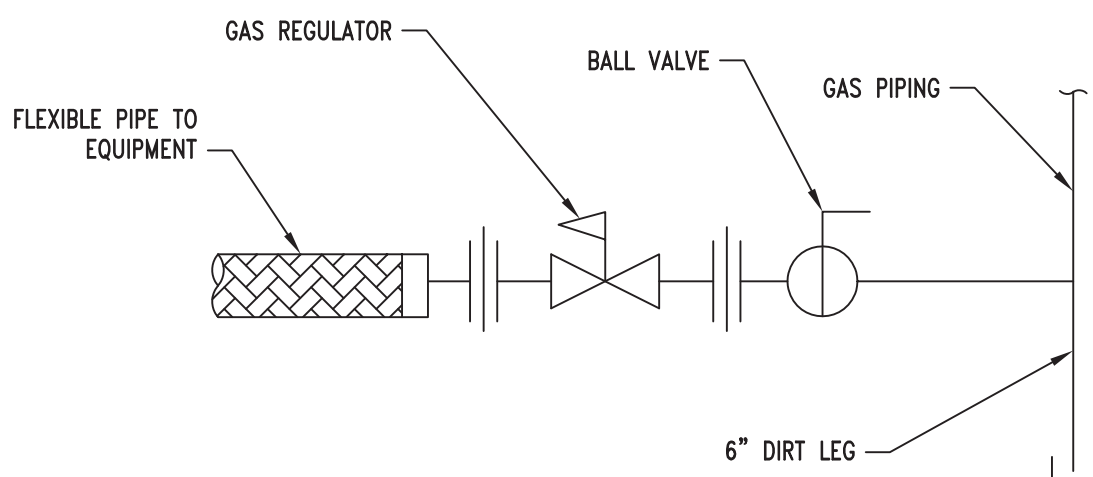
REVISIONS:

PLUMBING FIXTURE SCHEDULE

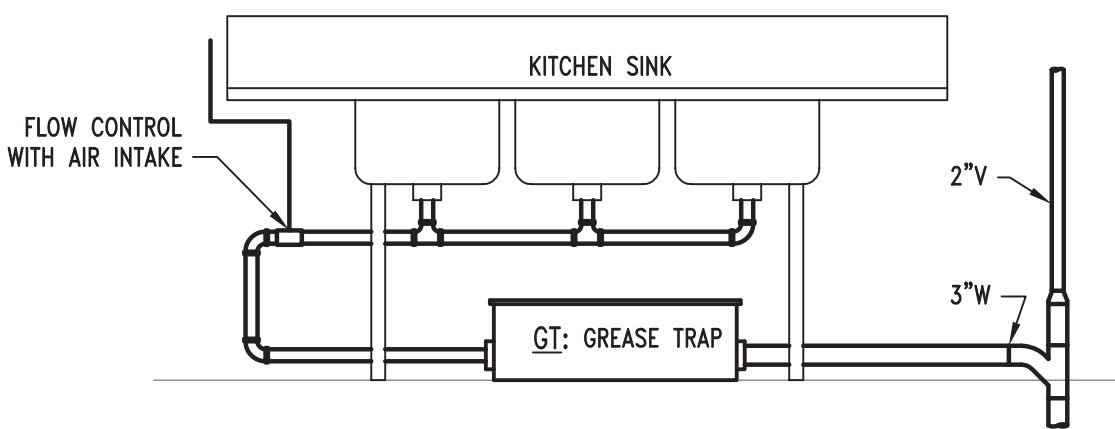
TAG	Fixture	Fixture manufacturer (or equal)	Fixture model #	Trim manufacturer (or equal)	Trim model #	Sanitary	Vent	Cold water	Hot water	Remarks
P1	Sink, Single compartment, HC accessible.	Elkay	DLRS332212	Delta	27C1944	2"	2"	1/2"	1/2"	33"x22" overall dimension. Inside bowl: 28"x16"x11-5/8". Heavy duty gooseneck spout with hose and spray. Provide four holes in deck for spout, sprayer, hw, cw.
GT1	POINT OF USE GREASE TRAP	Ashland	PolyTrap 4820	-	-	3"	2"	-	-	40 LB CAPACITY WITH FLOW RESTRICTOR.
GT2	POINT OF USE GREASE TRAP	Ashland	PolyTrap 4820	-	-	3"	2"	-	-	40 LB CAPACITY WITH FLOW RESTRICTOR.

GAS-FIRED WATER HEATER SCHEDULE

tag	GWH		
basis of design	State		
model	SUF-100-199-NEA		
type	tank type		
storage capacity (gallons)	100 gal		
heating input (mbh)	199 mbh		
recovery (gph at 100° rise)	230 gph		
energy factor	96%		
volts/phase	115/1		
normal load (watts)	100 W		
notes	1,2,3		
1. Provide service access in accordance with Code and manufacturer's recommendations.			
2. Provide expansion tank.			



1
P1 GAS CONNECTION DETAIL
SCALE: NONE



2
P1 GREASE TRAP PIPING DETAIL
SCALE: NONE

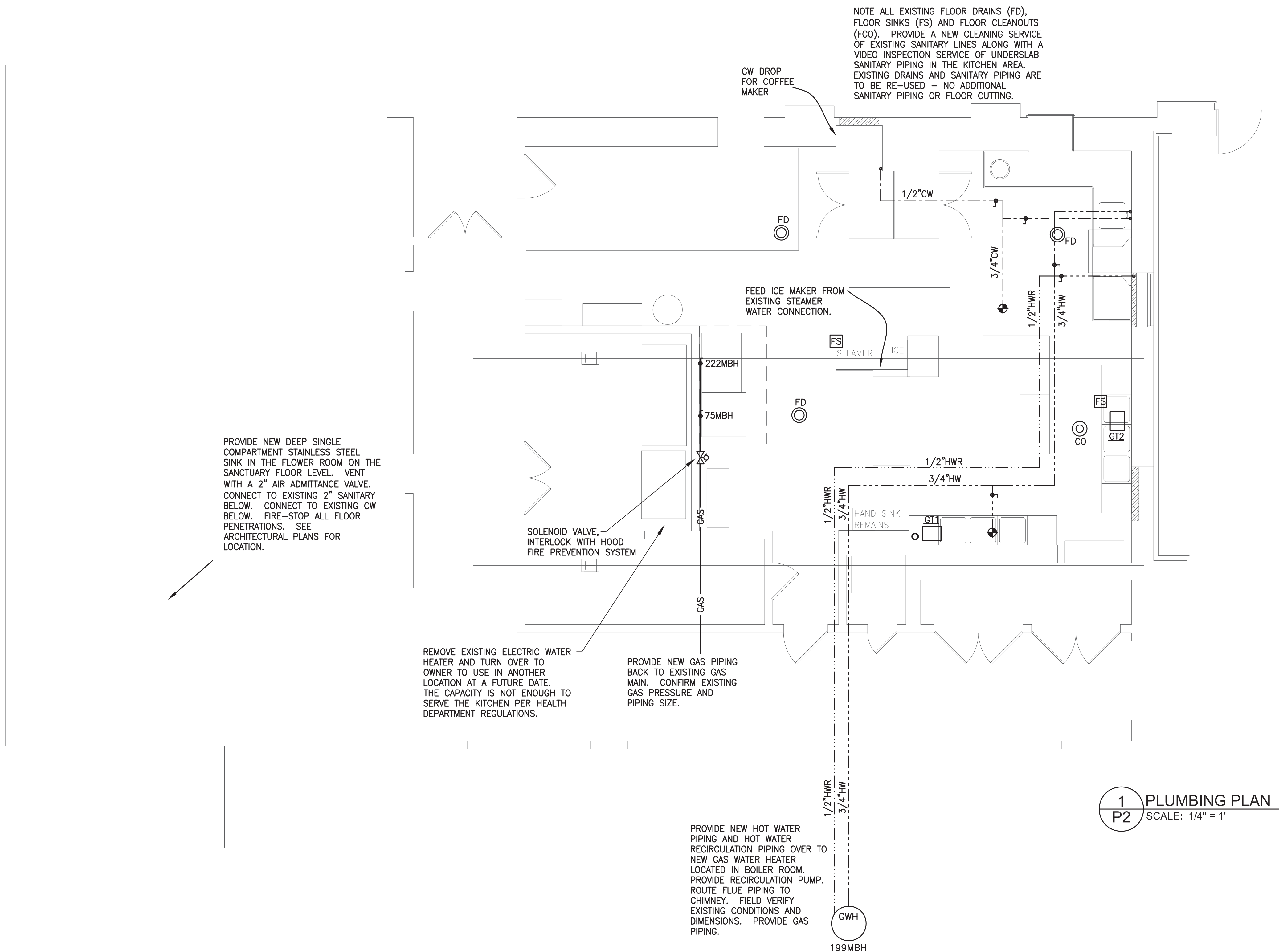
Kitchen Remodel for:

FIRST PRESBYTERIAN CHURCH

Asheville, NC

40 Church St.

P1





**Tilden White
& Associates, PLLC**
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DATE:
January 30, 2014
REVISIONS:

Kitchen Remodel for:

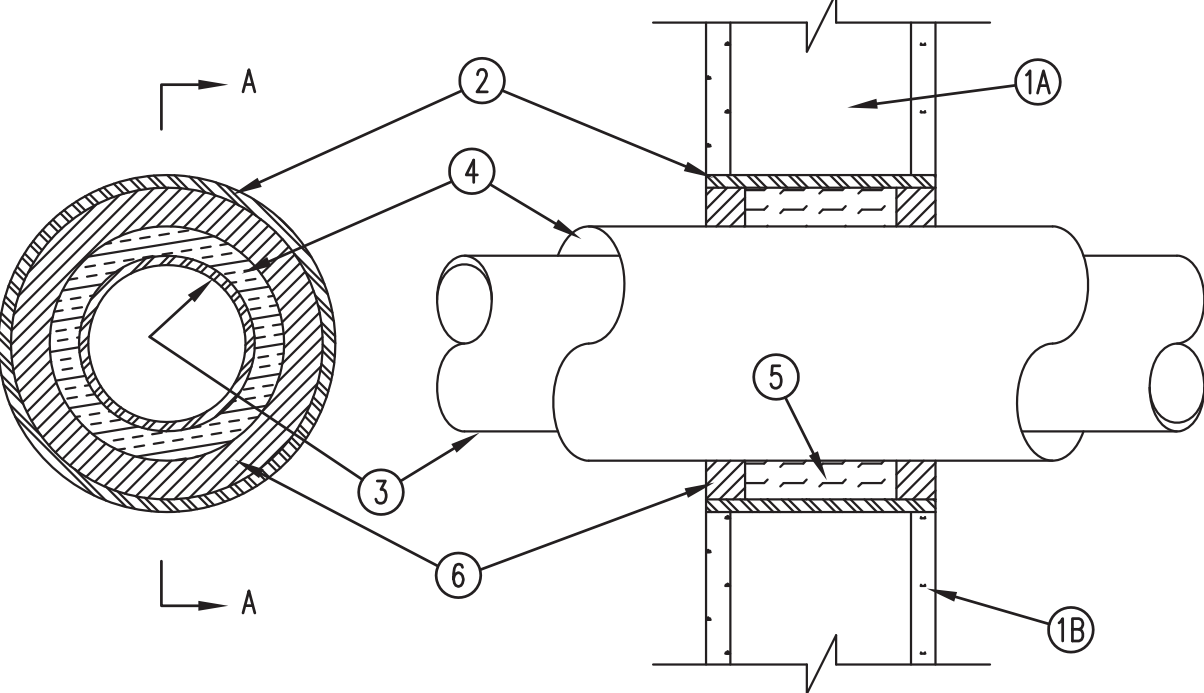
FIRST PRESBYTERIAN CHURCH

40 Church St.
Asheville, NC

P2

System No. W-L-5021

F Rating - 1 Hr
T Rating - 1/2 Hr
L Rating At Ambient - 4 CFM/Sq Ft
L Rating At 400 F - Less Than 1 CFM/Sq Ft



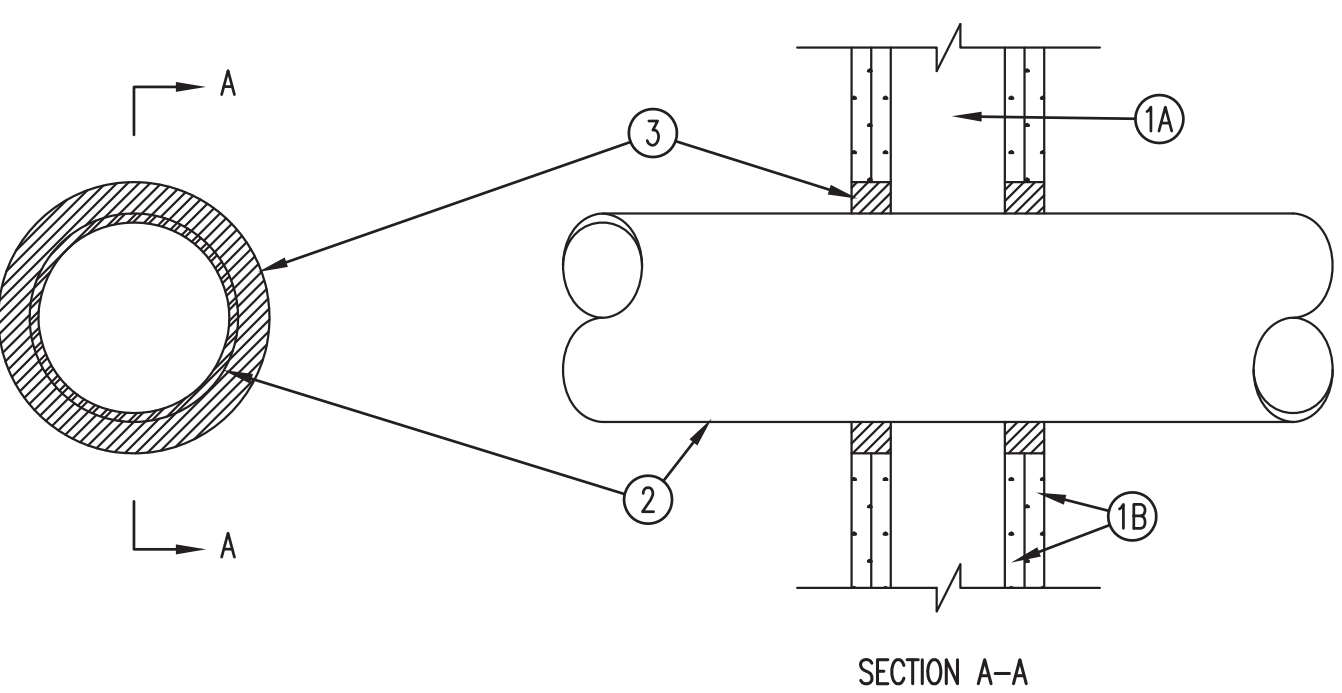
1. Wall Assembly — The fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features: A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 3-1/2 in. wide and spaced max 24 in. OC. B. Gypsum Board* — One layer of 5/8 in. thick gypsum wallboard, as specified in the individual Wall and Partition Design. Max diam of opening is 8 in. 2. Metallic Sleeve — Nom 8 in. diam (or smaller) Schedule 40 (or thinner) steel pipe cast into wall assembly with joint compound and installed flush with wall surfaces. 3. Through Penetrants — One metallic pipe or tubing to be centered within the firestop system. Pipe or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes or tubing may be used: A. Steel Pipe — Nom 4 in. diam (or smaller) Schedule 40 (or heavier) steel pipe. B. Copper Tubing — Nom 4 in. diam (or smaller) Type L (or heavier) copper tubing. C. Copper Pipe — Nom 4 in. diam (or smaller) Regular (or heavier) copper pipe. 4. Pipe Covering* — Nom 1 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. An annular space of 3/4 in. is required within the firestop system. See Pipe and Equipment Covering — Materials — (BRGU) category in the Building Material Directory for the names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used. 5. Packing Material — Min 2-3/4 in. thickness of min 4.0 pcf mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from both surfaces of wall as required to accommodate the required thickness of fill material. 6. Fill, Void or Cavity Material* — Sealant — Min 1 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant

**INSULATED PIPE FIRE STOPPING DETAIL
FOR STUD WALL PENETRATION (1 HR RATED)**

1
P3
SCALE: NONE

System No. W-L-1054

F Ratings - 1 and 2 Hr (See Items 1 and 3)
T Rating - 0 Hr
L Rating At Ambient - Less Than 1 CFM/Sq Ft
L Rating At 400 F - 4 CFM/Sq Ft



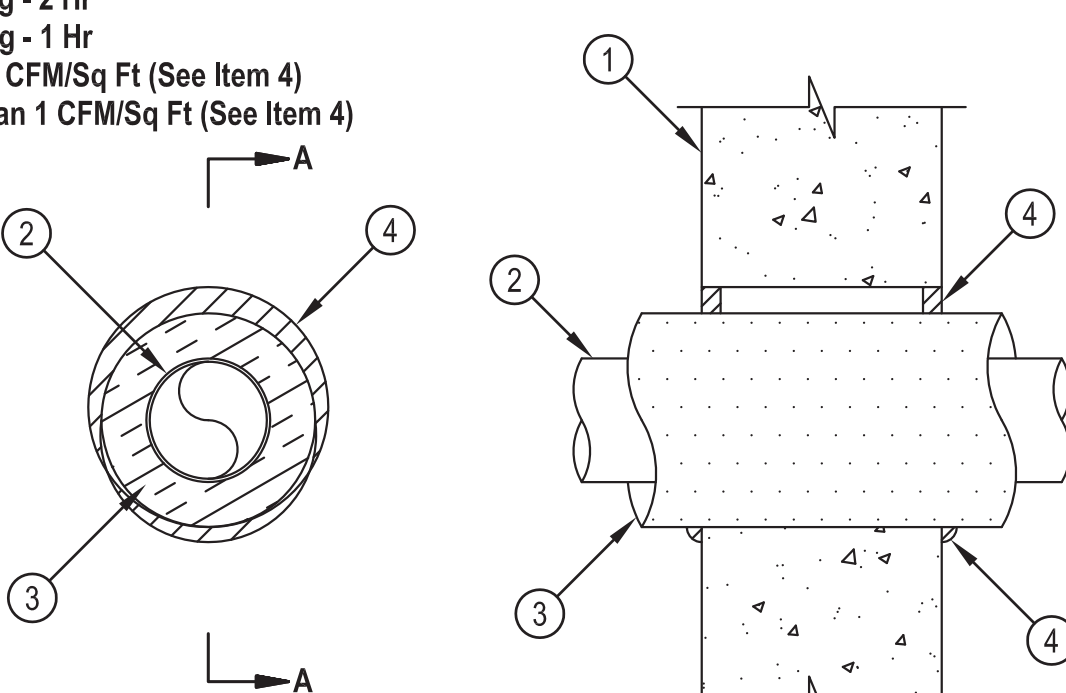
1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features: A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. wider and 4 to 6 in. higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. clearance is present between the penetrating item and the framing on all four sides. B. Gypsum Board* — 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. for steel stud walls. Max diam of opening is 14-1/2 in. for wood stud walls. The F Rating of the firestop system is equal to the fire rating of the wall assembly. 2. Through-Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. Pipe may be installed with continuous point contact. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used: A. Steel Pipe — Nom 30 in diam (or smaller) Schedule 10 (or heavier) steel pipe. B. Iron Pipe — Nom 30 in. diam (or smaller) cast or ductile iron pipe. C. Conduit — Nom 4 in diam (or smaller) steel electrical metallic tubing or 6 in. diam steel conduit. D. Copper Tubing — Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing. E. Copper Pipe — Nom 6 in. diam (or smaller) regular (or heavier) copper pipe. 3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant

**METALLIC PIPE FIRE STOPPING DETAIL
FOR STUD WALL PENETRATIONS
(1&2 HR RATED)**

3
P3
SCALE: NONE

System No. W-J-5134

F Rating - 2 Hr
T Rating - 1 Hr
L Rating At Ambient - 4 CFM/Sq Ft (See Item 4)
L Rating At 400 F - Less Than 1 CFM/Sq Ft (See Item 4)



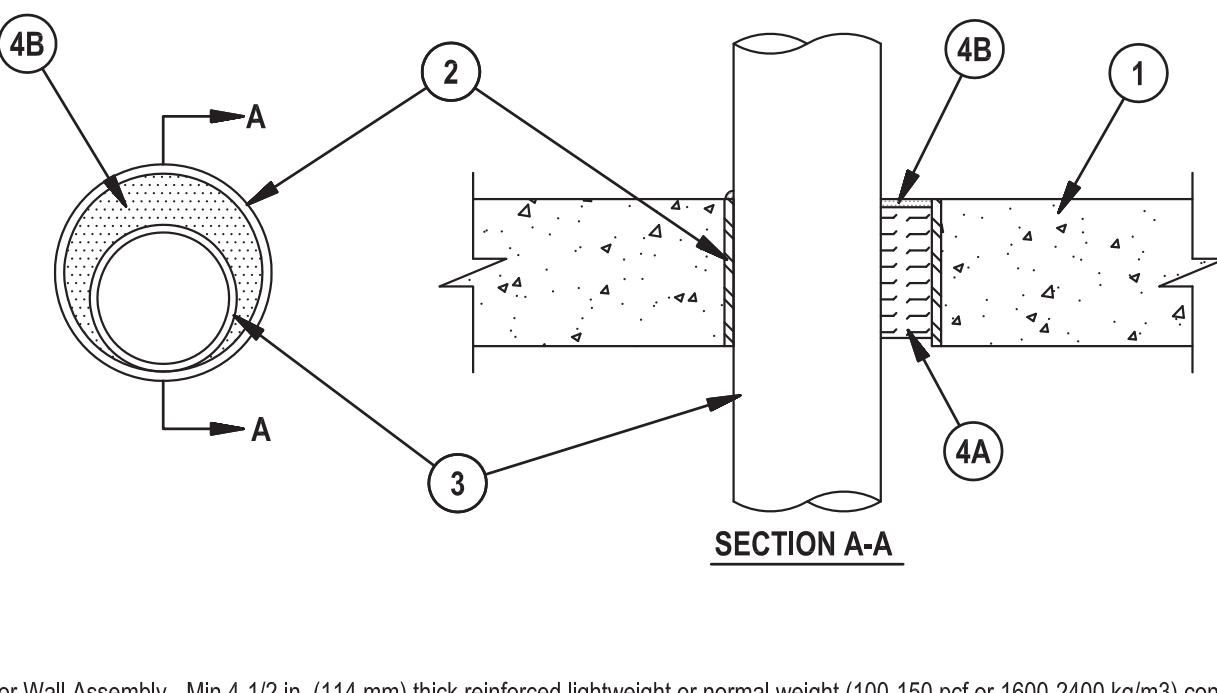
1. Wall Assembly — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 8 in. (203 mm). See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers. 2. Through Penetrant — One metallic pipe or tube to be installed eccentrically or concentrically within the firestop system. Pipe or tube to be rigidly supported on both sides of the wall assembly. The following types and sizes of metallic pipes and tubes may be used: A. Steel Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe. B. Iron Pipe — Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe. C. Copper Pipe — Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe. D. Copper Tube — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tube. 3. Pipe Covering* — Nom 1-1/2 in. (38 mm) thick hollow cylindrical heavy density (3.5 pcf or 24 kg/m3) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. The annular space between the insulated pipe and the periphery of the opening shall be min 0 in. (point contact) to max 7/8 in. (22 mm). See Pipe Equipment Covering — Materials — (BRGU) Category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used. 4. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with both surfaces of wall assembly. At point contact location, min 1/2 in. (13 mm) diam bead of fill material applied at insulated metallic pipe/wall interface on both surfaces of wall. L Ratings apply only when FS-One Sealant is used. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant, CP 606 Sealant or CP 601S Sealant

**INSULATED PIPE FIRE STOPPING DETAIL
FOR CONCRETE WALL PENETRATIONS
(2 HR RATED)**

2
P3
SCALE: NONE

System No. C-AJ-1421

F Rating - 2 and 3 Hr (See Item 4B)
T Rating = 0 Hr




1. Floor or Wall Assembly - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 6 in. (152 mm). See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers. 2. Metallic Sleeve - (Optional) Nom 6 in. (152 mm) diam (or smaller) Schedule 40 (or heavier) steel sleeve cast or grouted into floor or wall assembly, flush with floor or wall surfaces. 3. Through-Penetrant - One metallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe, tube or conduit and periphery of opening shall be min 0 in. (0 mm) (point contact) to max 5-3/8 in. (137 mm). Pipe or conduit to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes or conduits may be used: A. Steel Pipe - Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe. B. Iron Pipe - Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe. C. Copper Pipe - Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe. D. Copper Tubing - Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing. E. Conduit - Nom 4 in. (102 mm) diam (or smaller) steel conduit. F. Conduit - Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT). 4. Firestop System - The firestop system shall consist of the following: A. Packing Material - Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material. B. Fill, Void or Cavity Material* - Sealant - Min 1/4 in. (6 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall. For 3 Hr rated assemblies, a min 1/4 in. (6 mm) diam bead of fill material shall be applied at the concrete/pipe interface at the point contact location on the top surface of floor and on both surfaces of wall. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or CP604 Self-Leveling Firestop Sealant. CP604 shall be used in floor applications only. When CP604 is used, F Rating is 2 Hr.

**METALLIC PIPE FIRE STOPPING DETAIL
FOR CONCRETE WALLS & FLOORS
(2&3 HR RATED)**

4
P3
SCALE: NONE

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SEAL
028953
TILDEN A. WHITE
ENGINEER

1-31-2014

DATE:
January 30, 2014

REVISIONS:



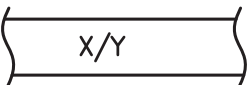
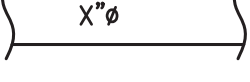
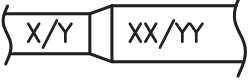



Kitchen Remodel for:

FIRST PRESBYTERIAN CHURCH

40 Church St.
Asheville, NC

P3

MECHANICAL LEGEND

Supply Diffuser (Type X, YYY CFM)	 xyy
Return Grille (Type X)	 x
Rectangular Duct X" Wide, Y" Deep (Inside Clear Dimension)	 X/Y
Round duct X" Diameter (Inside Clear Dimension)	 X"
Duct Transition: Rectangular To Rectangular	 X/Y XX/Y/Y
Duct Branch Tap: Round Spin-In Damper	 X/Y
Thermostat - Mount 48" AFF	
Fire Damper - FD	

AIR DEVICE SCHEDULE

TAG	S1	S2	R1	T1
manufacturer (or equal)	Price	Price	Price	Price
model	SPD-24x24	SPD-24x24	530	530
type	Clg Supply	Clg Supply	Clg Return Grille	Sidewall Transfer Grille
neck	10"Ø	12"Ø	22"x22"	24" x 12"
airflow (cfm)	250-400	401-500	0-1000	900-1800
NC	<20	<20	<25	<25
applicable notes	1,2	1,2	1	1

1. Provide with white baked enamel finish unless noted otherwise. See reflected ceiling pans for locations.
2. Provide ceiling diffusers with equalizing grid. See plan for directional arrows. Provide directional diffusers as indicated so that air doesn't blow directly toward the grease hood.

FAN SCHEDULE

TAG	VF1		
serves	PANTRY		
manufacturer (or equal)	Greenheck		
model	CSP-A510		
type	INLINE		
drive	direct		
rpm	1070		
airflow (cfm)	506		
esp (inches H2O)	0.125		
max. sones	2.8		
control	BREAKER		
voltage	120V		
power (watts)	217 W		
weight	40 lbs		
applicable notes	1,2		

1. Provide unit mounted disconnect and backdraft damper.
2. Run continuously - control from panel K2.

MECHANICAL NOTES

1. All work and materials shall be in accordance with the applicable sections of the N.C. State Building Code and local codes and ordinances.
2. Provide five sets of mechanical equipment submittals to the GC for the architect, engineer, GC and owner to review and approve.
3. Obtain and pay for all permits, fees, inspections etc. as required for work under this contract.
4. It is the responsibility of the mechanical contractor to field verify existing conditions and dimensions before beginning work.
5. Perform all work in a neat workman-like manner and in accordance with industry standards.
6. Ductwork shall be galvanized steel fabricated and installed in accordance with SMACNA hvac duct standards. Seal all joints with mastic duct sealant.
7. Rectangular ductwork within 10' of fans shall be internally lined with 1-1/2" thick, 1,5 PCF acoustical duct liner.
8. Note that the dimensions on the plans are net free internal dimensions. Increase the dimensions during fabrication to allow for the thickness of duct liner.
9. Supply ductwork within the thermal envelope shall be insulated with equivalent R-6 insulation with vapor barrier jacket. Supply ductwork outside of the thermal envelope shall be insulated with equivalent R-8 insulation with vapor barrier jacket. This note also applies to make-up air ductwork.
10. Return ductwork within the thermal envelope is not required to be insulated. Return ductwork outside of the thermal envelope shall be insulated with equivalent R-8 insulation with vapor barrier jacket.
11. Exhaust ductwork within the thermal envelope is not required to be insulated except within 10' of it's exterior termination where it shall be insulated with equivalent R-8 insulation with vapor barrier jacket. Exhaust ductwork outside of the thermal envelope shall be insulated with equivalent R-8 insulation with vapor barrier jacket. This note does not apply to grease ductwork.
12. Outside air ducts shall be insulated with equivalent R-8 insulation with vapor barrier jacket.
13. Grease ductwork shall be constructed of 18 gauge (or thicker) stainless steel. Installation methods must be in accordance with Section 506 of the NC Mechanical Code.
14. Rectangular ductwork exposed to the weather shall be internally lined with 1" thick, 3 PCF acoustical duct liner, then externally insulated with 1" thick rigid fiberglass duct board insulation, then covered with aluminum jacket. Fabricate the aluminum jacket sections with continuous top and sides. Install so that the bottom seam runs longitudinally with the duct. Secure the seams with self-tapping TEK screws. Seams on the aluminum jacket shall be caulked with aluminum colored silicone caulk.
15. All exposed (visible) ductwork shall have a paint grip finish. Exposed round ductwork shall be double wall spiral duct.
16. Flexible ductwork shall be UL listed, helical wire reinforced film with vapor barrier jacket and a maximum c-factor of 0.23. Flexible ductwork shall be limited to 10' maximum length.
17. Mitered elbows in ductwork shall be provided with double thickness turning vanes. Elbows shall be radiused 90" wherever possible. Mitered elbows are to be used only where space restrictions prevent the use of radiused elbows.
18. Balance airflows to +/- 10% of the values specified on the plan. Submit a balance report, signed by the project manager, certifying that the balance was performed and the results are true and accurate.
19. Condensate piping located within walls or above the ceiling shall be insulated with 1/2" Armaflex insulation.
20. Gas piping shall be schedule 40 black steel with wrought iron fittings. Paint gas piping exposed to the exterior with two (2) coats of yellow oil based enamel paint unless otherwise noted.
21. Fire dampers shall be 1-1/2 hr UL listed - dynamic rated. Install dampers per printed instructions. Provide access panels as required for servicing.
22. Seal all duct openings during construction to prevent dust and debris from accumulating inside the ductwork.
23. Change air filters at project close-out to insure that clean filters are in place when the owner takes possession of the systems.
24. Provide record drawings to the building owner within 90 days after the date of system acceptance. Record drawings shall include as a minimum the location and performance data of each piece of equipment, general configuration of duct and pipe distribution systems including sizes, and the terminal air or water design flow rates.
25. Provide an operating manual and a maintenance manual to the building owner within 90 days after the date of system acceptance.
26. Warranty all work and materials for a minimum of one year from the date of acceptance by the owner. Refrigeration compressors shall carry an additional 4 years parts only warranty.

2012 APPENDIX B
BUILDING CODE SUMMARY:

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Method of Compliance
☒ Prescriptive ☐ Energy Cost Budget

Thermal Zone 4
Winter Dry Bulb: 16°F
Summer Dry Bulb: 85°F

Interior Design Conditions
Winter Dry Bulb: 68°F
Summer Dry Bulb: 75°F
Relative Humidity: 50%

Building Heating Load: 30 mbh

Building Cooling Load: 60 mbh

Mechanical Spacing Conditioning System

Unitary
description of unit: EXISTING 5TON HP
heating efficiency: See Schedules
cooling efficiency: See Schedules
heat output of unit: See Schedules
cooling output of unit: See Schedules

Boiler
total boiler output. If oversized, state reason. n/a
Chiller
total chiller capacity. If oversized, state reason. n/a

List equipment efficiencies: See Schedules

Equipment schedules with motors (mechanical systems)

motor horsepower: -
number of phases: -
minimum efficiency: -
motor type: -
of poles: -

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DATE:
January 30, 2014

REVISIONS:

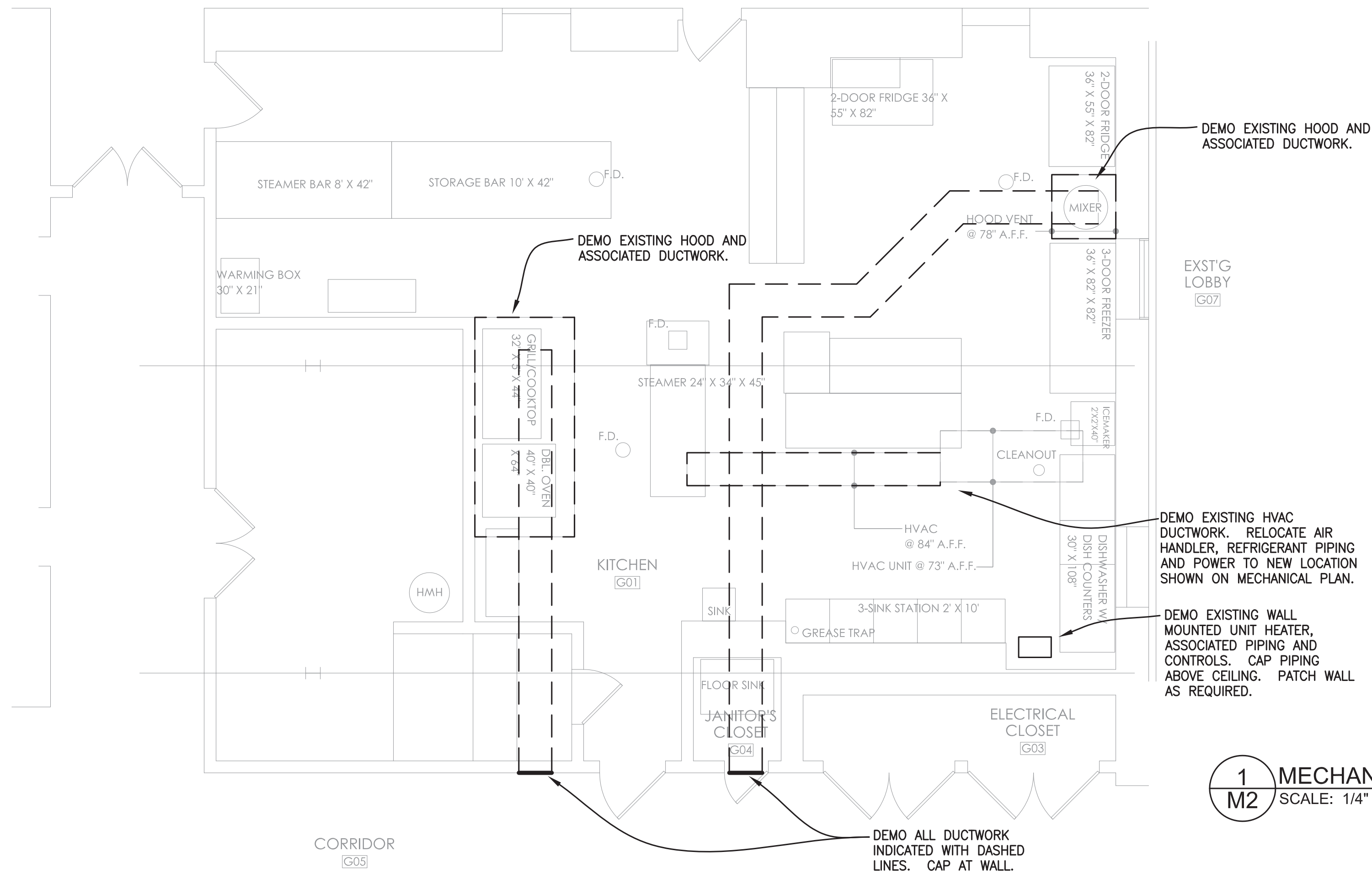
Kitchen Remodel for:

FIRST PRESBYTERIAN CHURCH

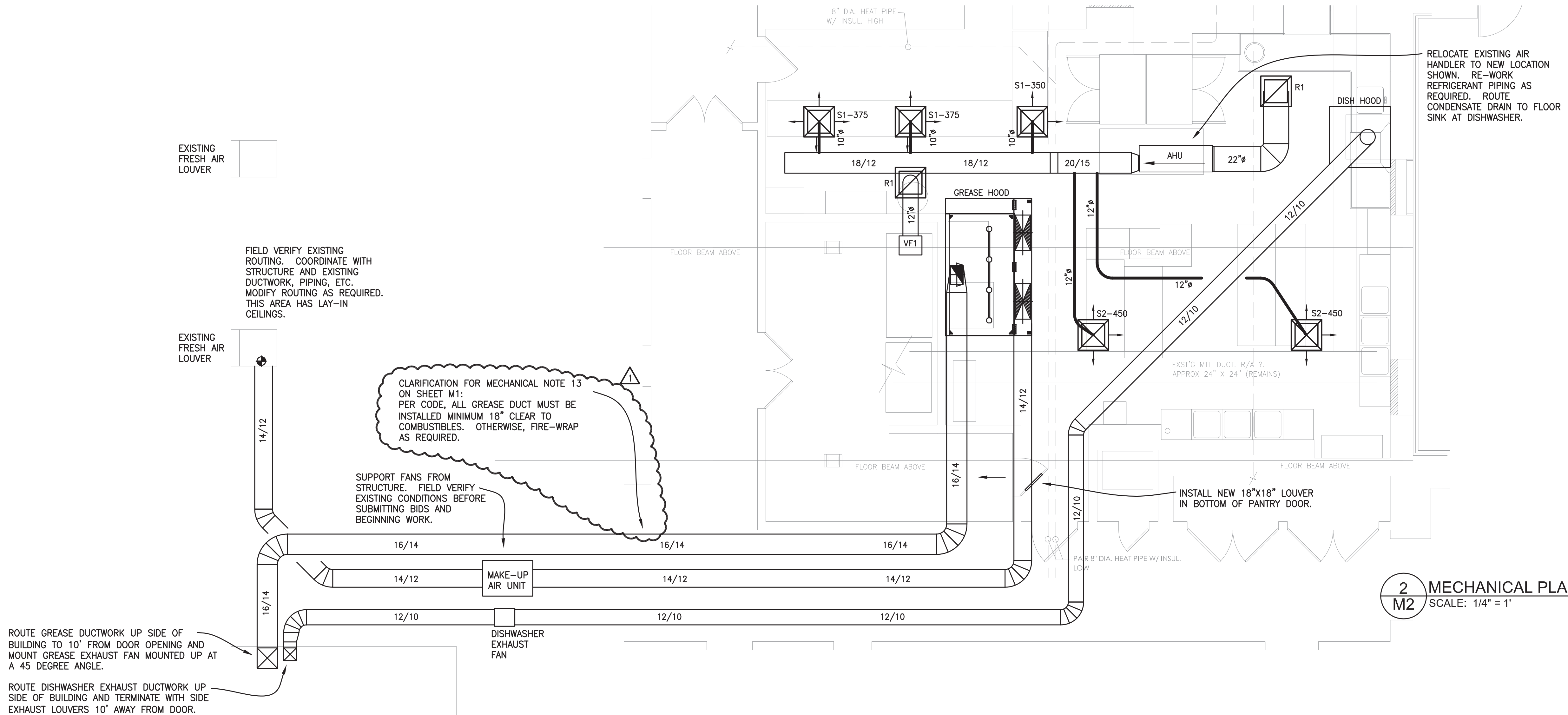
Asheville, NC

40 Church St.

M1



1
M2 MECHANICAL DEMO PLAN
SCALE: 1/4" = 1'




2
M2 MECHANICAL PLAN
SCALE: 1/4" = 1'

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ENGINEER
TILDEN A. WHITE
3-14-2014

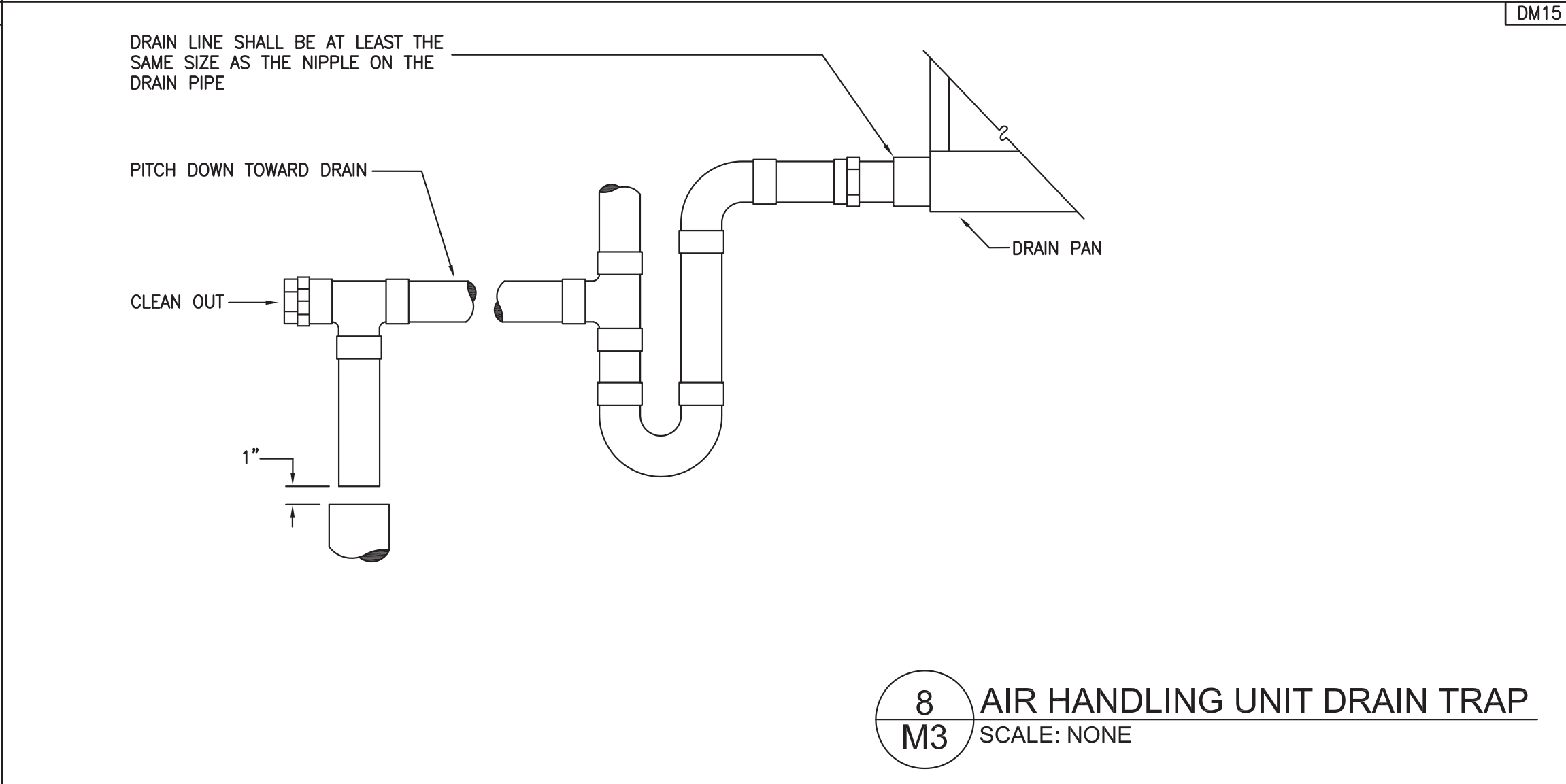
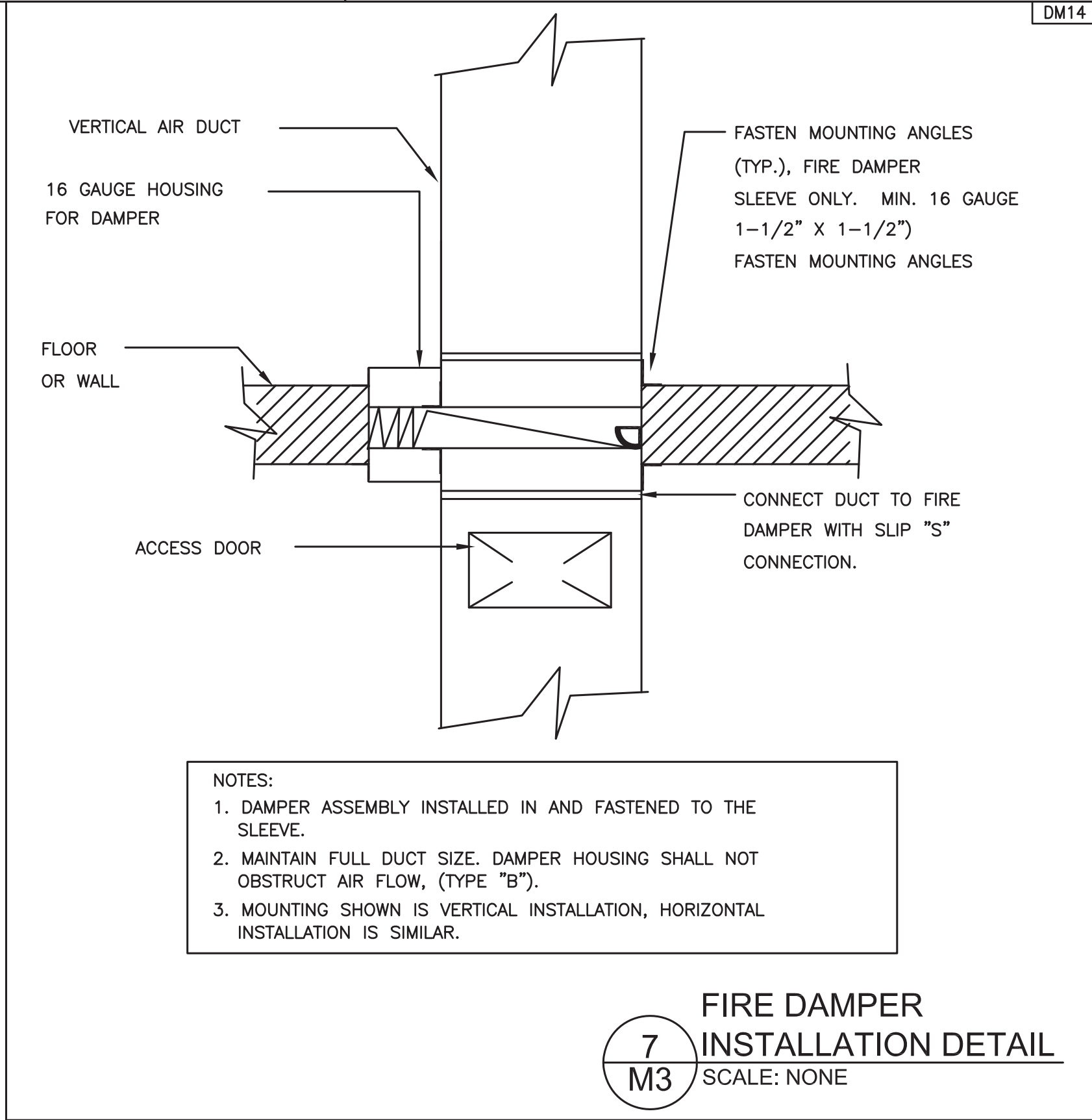
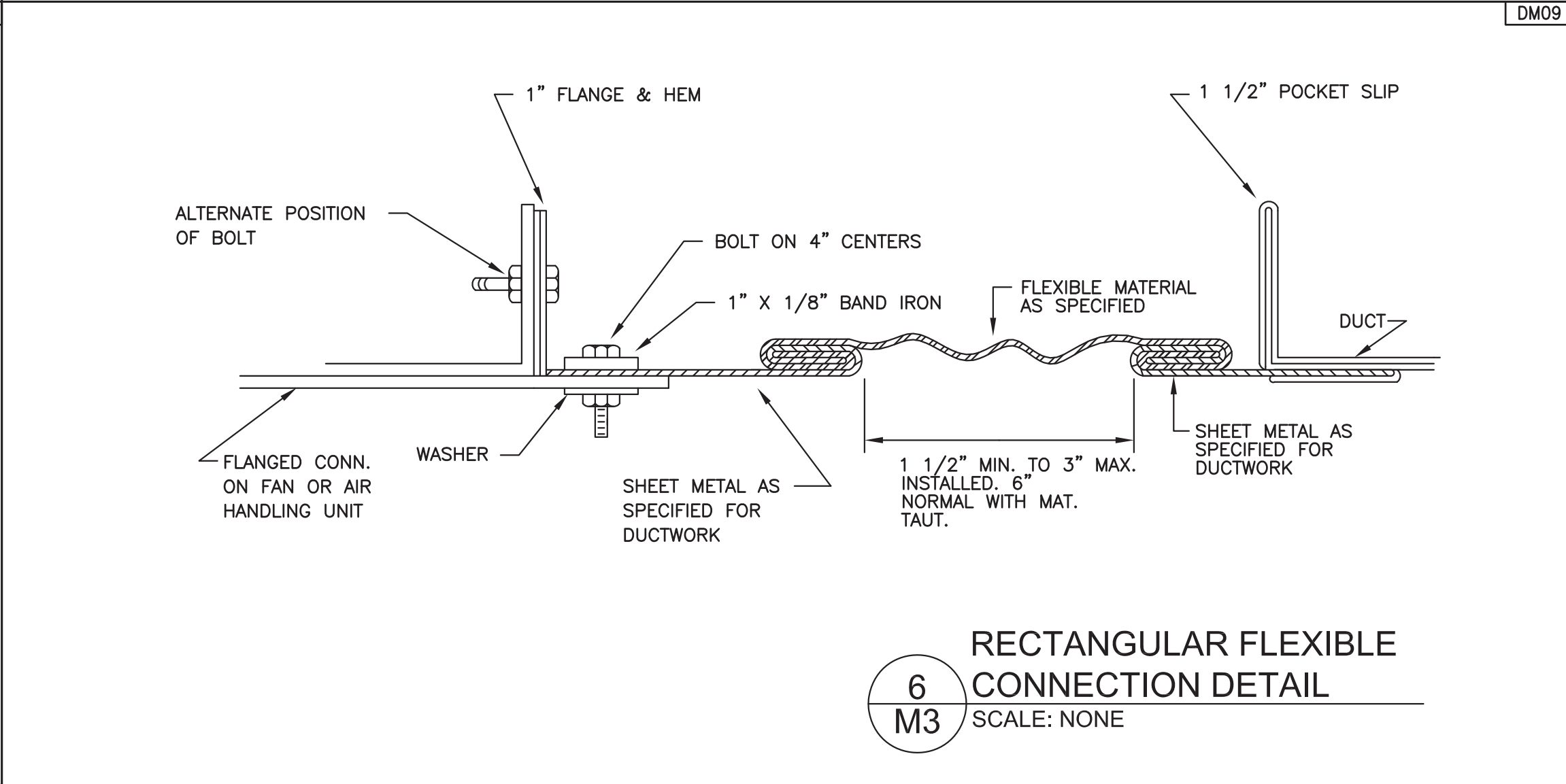
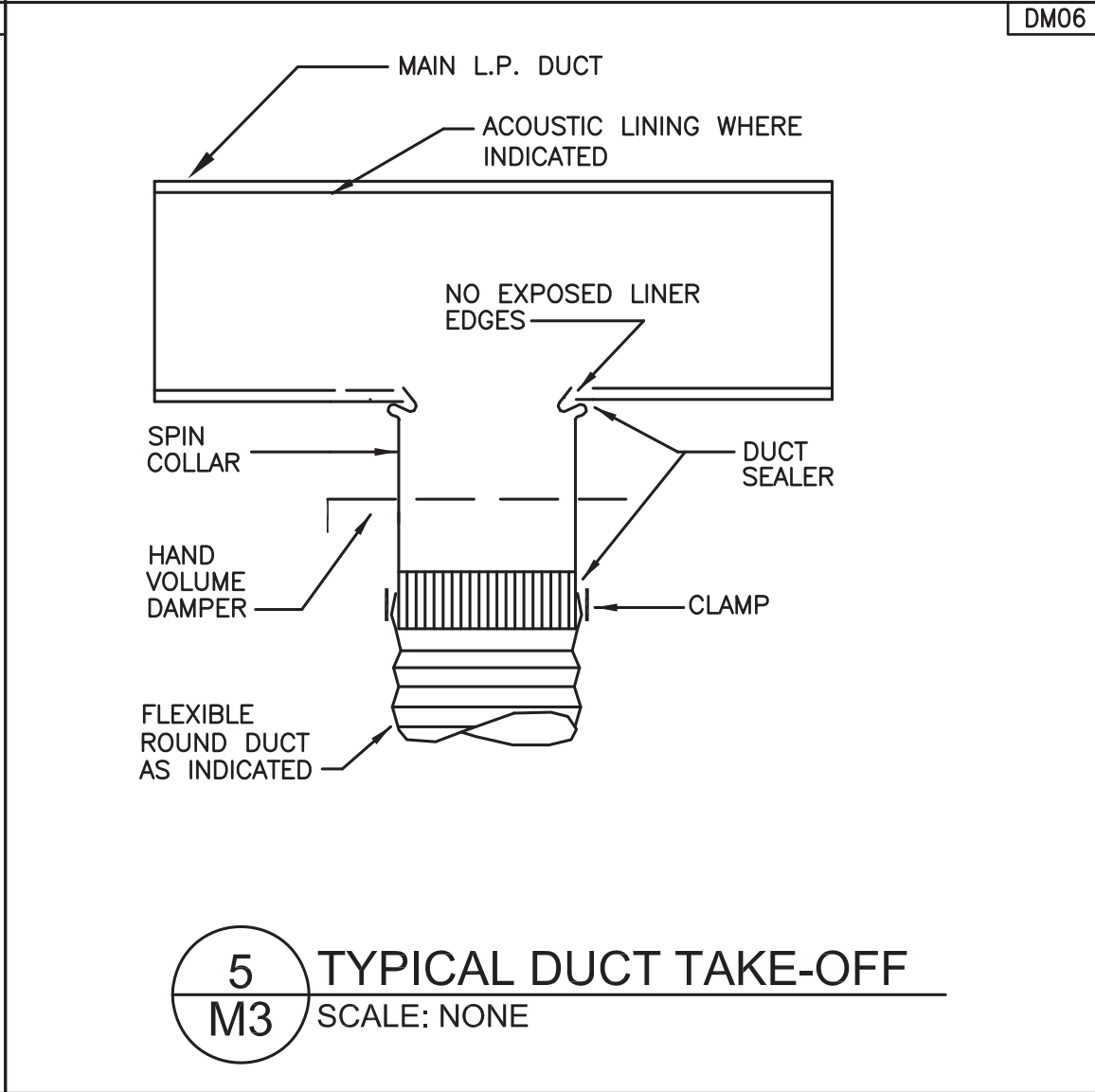
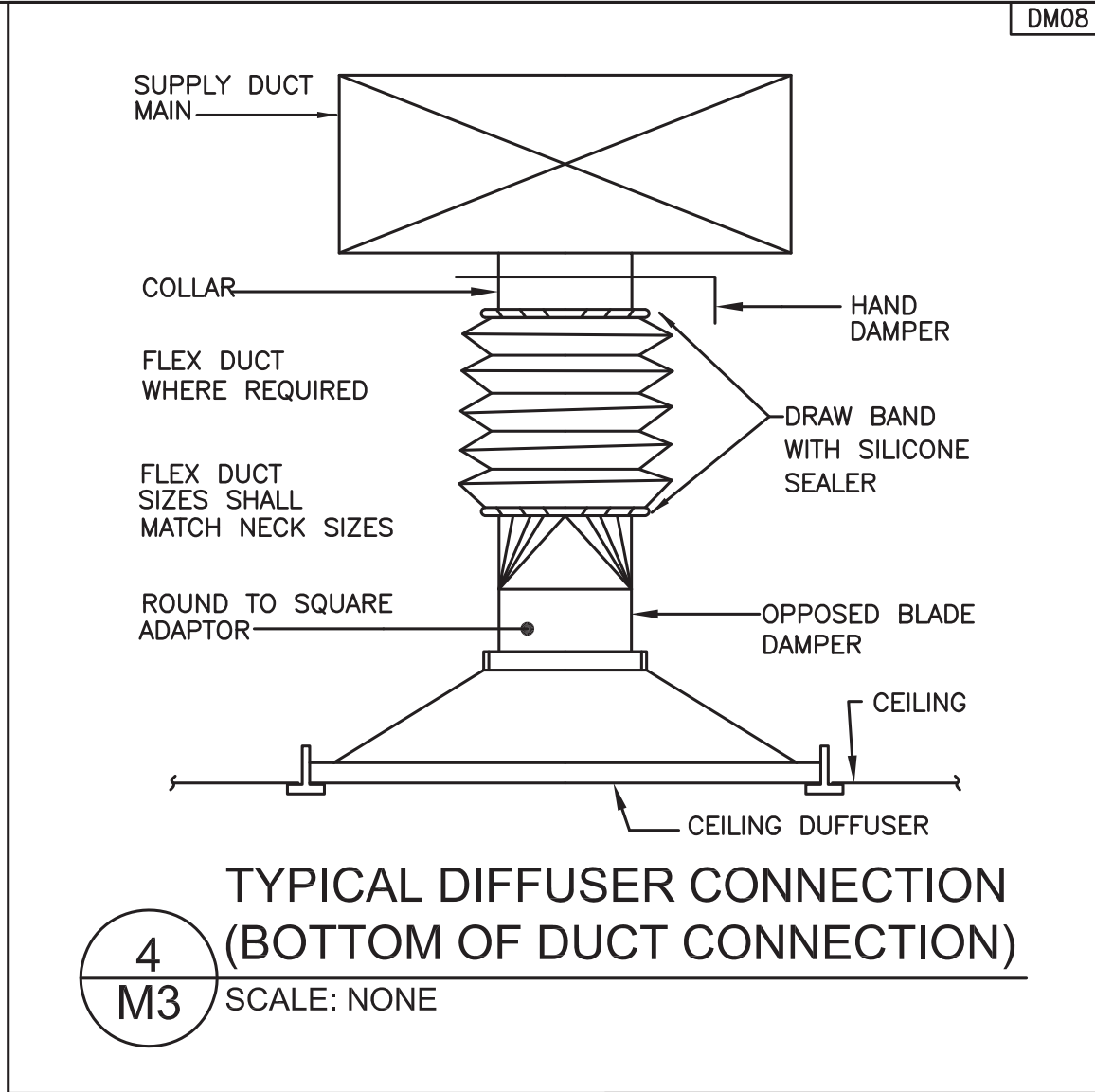
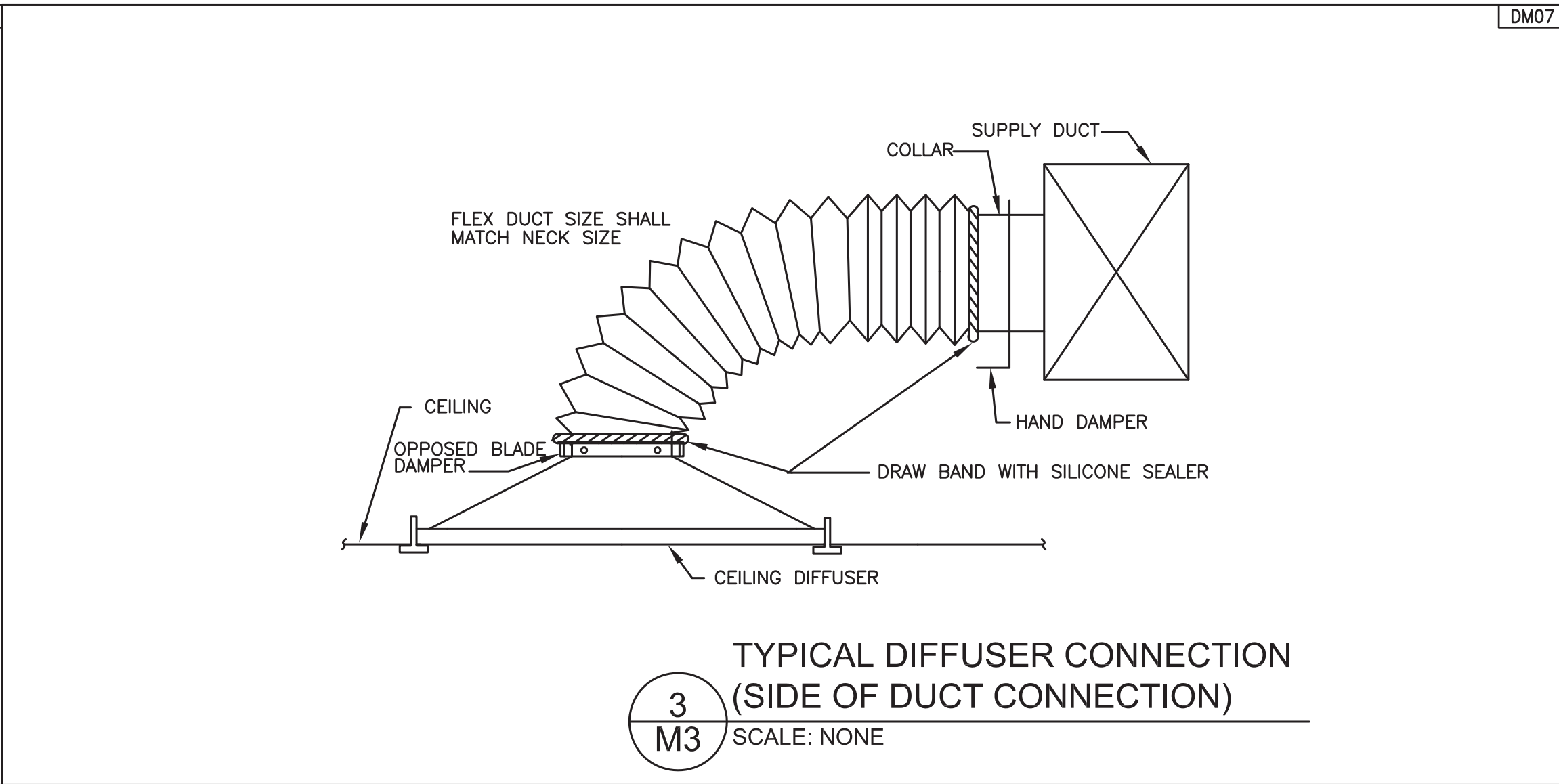
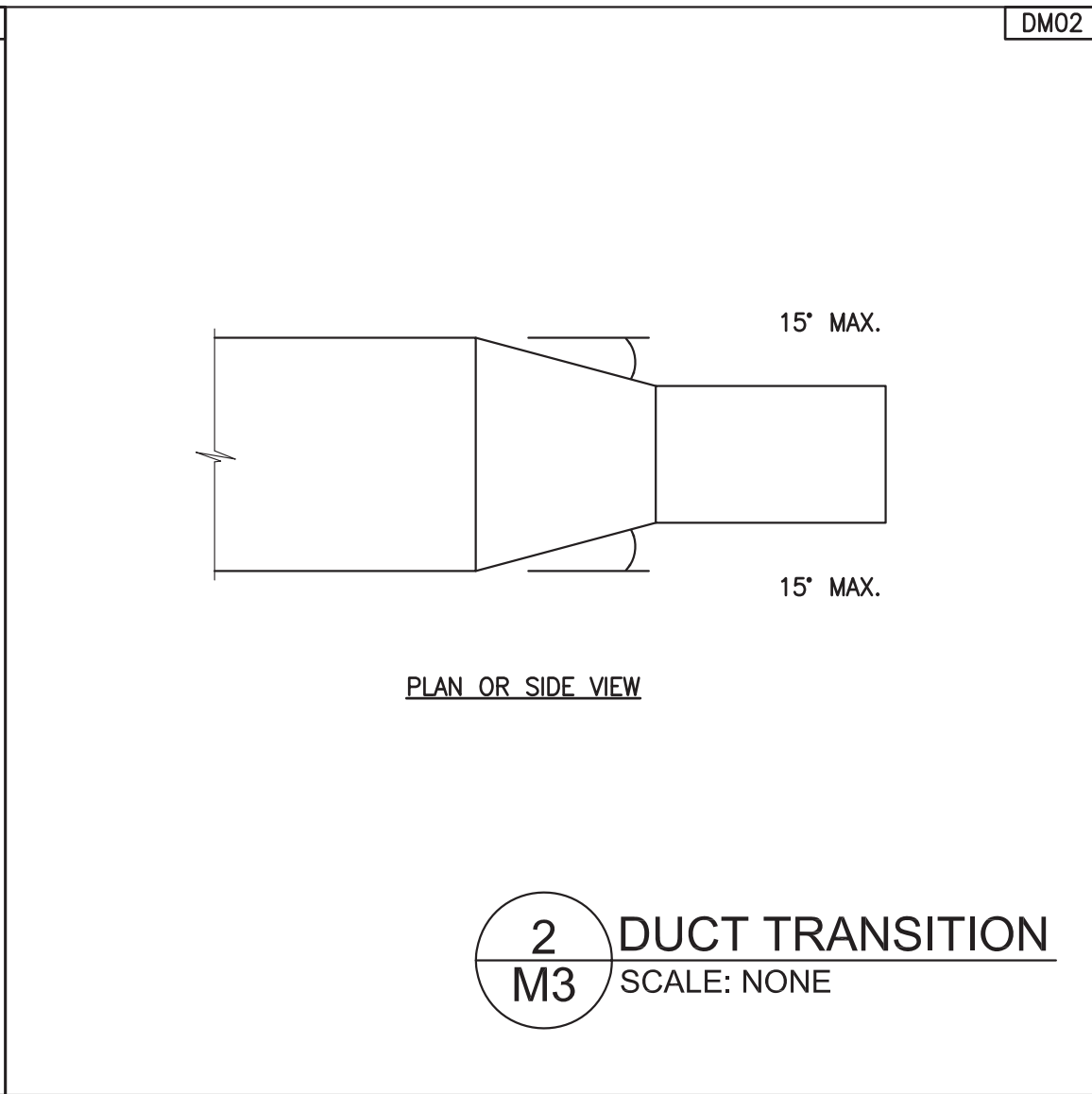
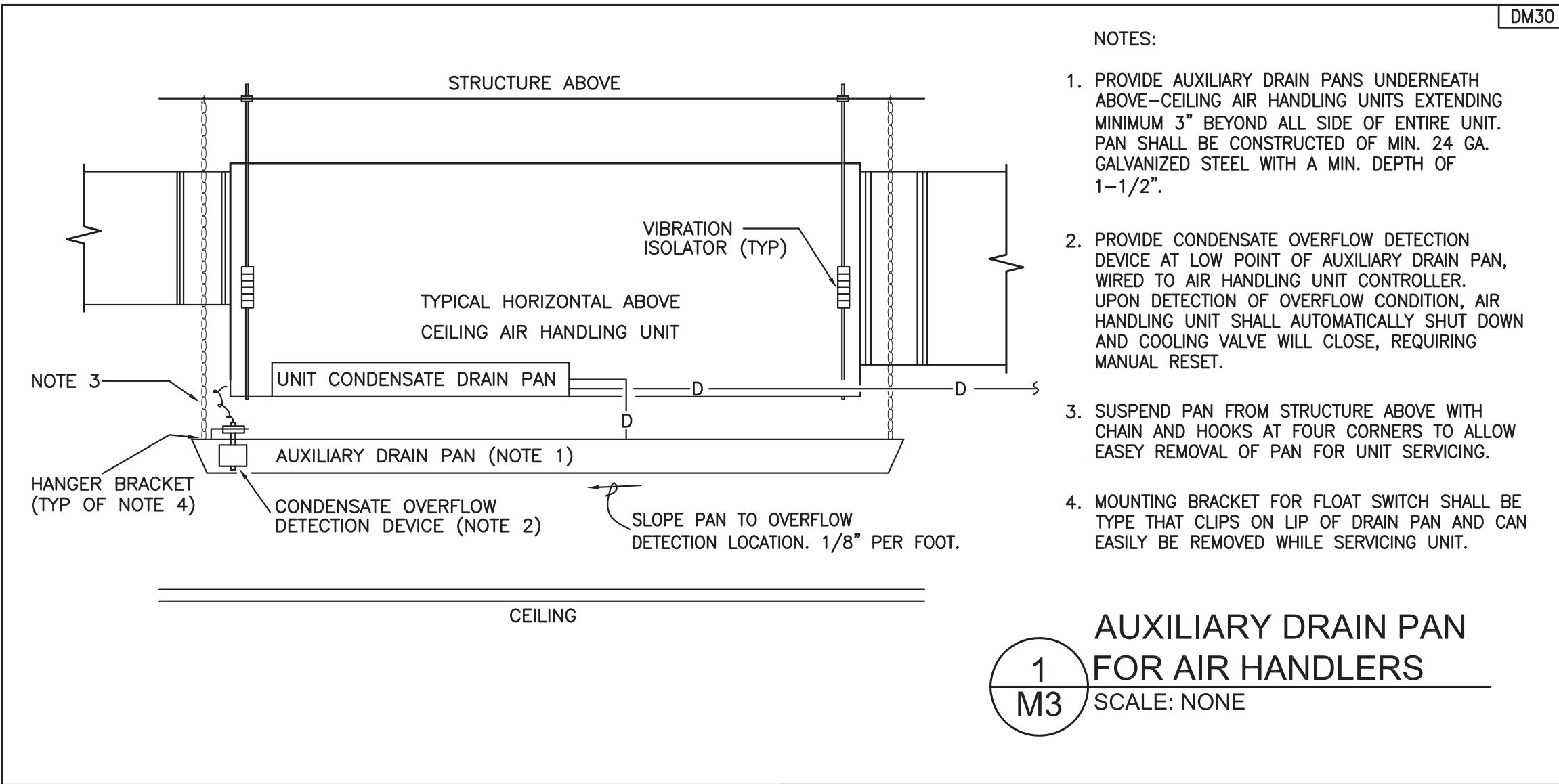
DATE:	January 30, 2014
REVISIONS:	
	3-14-2014

Kitchen Remodel for:

FIRST PRESBYTERIAN CHURCH

40 Church St.
Asheville, NC

M2



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FIRST PRESBYTERIAN CHURCH
Asheville, NC

Kitchen Remodel for:

M3

BRANCH CIRCUIT CONDUCTOR SIZING TABLE			
For circuits with branch circuit protection rated 20 amps or less, copper conductors shall be sized according to the following:			
voltage	distance (ft)	home run (AWG)	remainder (AWG)
120	0 - 50	12	12
	50 - 90	10	12
	90 - 140	8	10
	140 +	6	10
208	0 - 95	12	12
	95 - 160	10	12
	160 - 250	8	10
	250 +	6	10

WIRING DEVICE NOTES	
1.	Switches shall be Hubbell CS115 or equivalent and receptacles shall be Hubbell CR20 or equivalent. Devices shall be white or as directed by architect.
2.	Switches shall be as follows: <div><div>single pole 20 amp</div><div>3 way 20 amp</div><div>4 way 20 amp</div><div>motor starter switch</div></div> <div><div>CSB20AC1-I</div><div>CSB20AC3-I</div><div>CSB20AC4-I</div><div>Square D type "K" series</div></div>
3.	Duplex receptacle shall be as follows: <div><div>20 amp duplex</div><div>20 amp duplex-GFCI</div><div>20 amp duplex-Weather GFI</div></div> <div><div>P55362I</div><div>2095IL</div><div>2095TRWRI</div></div>
Note: Duplex receptacles have nylon face and side wire type. Receptacles shall have brass contacts, brass terminal screws and green ground wire screw. GFCI receptacle shall be included with a trip indicator light.	
4.	Coverplates shall be oversized stainless steel SSJX or as directed by architect.
5.	Outlet boxes shall not be mounted back-to-back.
6.	Receptacles shall be 20 amp unless 15 amp is required by equipment served.
7.	Weatherproof in use covers shall be clear equal to Leviton. For horizontal mount covers use part no. "5957-CL". For vertical mount covers use part no. "5977-CL".
8.	All outlets (including telephone and data) shall have cover plates.

2012 APPENDIX B BUILDING CODE SUMMARY: ELECTRICAL SYSTEM AND EQUIPMENT		
Method of Compliance:		
Prescriptive	Performance	Energy Cost Budget
Lighting schedule		
lamp type required in fixture		(see fixture schedule)
number of lamps in fixture		(see fixture schedule)
ballast type used in the fixture		(see fixture schedule)
number of ballasts in fixture		(see fixture schedule)
total wattage per fixture		(see fixture schedule)
total interior wattage specified vs. allowed	0.8 kW vs. 1.2 kW	
total exterior wattage specified vs. allowed	N/A	
Equipment schedules with motors (not used for mechanical systems)		
motor horsepower	n/a	
number of phases	n/a	
minimum efficiency	n/a	
motor type	n/a	
# of poles	n/a	

ELECTRICAL NOTES	
1.	The intent of these drawings and specifications are to describe the installation of a complete, fully adjusted, and operational system.
2.	Provide five sets of electrical equipment submittals to the GC for the architect, engineer, GC and owner to review and approve prior to purchasing.
3.	The contractor shall provide all supervision, labor, material, equipment, machinery, and any and all other items necessary to complete the system. All work shall be performed in a neat and workmanlike manner in accordance with industry standards.
4.	All work under this section shall be accomplished in strict accordance with state building codes and the National Electric Code. Coordinate with local power company requirements.
5.	The contractor shall obtain all necessary approval, obtain all permits and pay all fees required for the installation of their work.
6.	The drawings are diagrammatic only. The contractor may need to make field adjustments to accommodate actual field conditions.
7.	Devices located in rated walls shall have sufficient separation from other devices to allow proper installation and firestopping.
8.	The contractor shall refer to the architectural and structural drawings for the general construction of the building, for floors and ceiling heights, for locations of wall, partitions, beams, etc.
9.	Manufacturer's listed are to establish a standard of quality and not intended to limit the selection to these manufacturers.
10.	Contractor shall verify all listed model numbers with manufacturers to insure proper application of equipment.
11.	Equipment and materials shall be handled, stored and protected in accordance with the manufacturer's recommendations.
12.	The contractor shall perform any and all trenching, excavation and backfilling required for the installation of this work.
13.	The contractor shall furnish all necessary scaffolding, staging, rigging and hoisting required for the completion of this work.
14.	All work shall be coordinated with the general contractor and other trades involved in the construction project. All work shall be carefully laid out in advance to coordinate architectural, structural, mechanical, plumbing and electrical features of construction.
15.	The electrical contractor shall visit the site before submitting his bid so as to be thoroughly familiar with the job conditions and/or peculiarities. No extra payment will be allowed for anything which could have been anticipated from a visit to the site.
16.	Equipment shall be installed in accordance with manufacturer's written instructions.
17.	Provide grounding for all conduits, motor frames, metal casings, receptacles, system neutral, etc. and as required by NEC as minimum. Resistance to ground shall not exceed 25 OHMS.
18.	A green insulated copper ground wire, sized per NEC, shall be installed in all raceways, electric metallic tubing used for feeders, branch circuits, flexible conduit, and as otherwise noted on the drawings.
19.	All fixtures shown on the plans shall be furnished and installed, complete with all mounting accessories, lamps and tubes. Fixtures shall be independently supported from structure.
20.	All wiring shall be run in conduit. The minimum indoor conduit size shall be 1/2". Indoor conduit shall be electrical metallic tubing or type or MC may be used for branch circuits where allowed by NEC and not subject to physical damage, moisture or dampness. Connection to equipment shall be flexible metal conduit except in wet or damp locations use liquid tight flexible metal conduit. Indoor boxes and enclosures shall be NEMA type 1, except in damp or wet locations use NEMA type 4, stainless steel. Where nonmetallic conduit is used below the slab provide rigid conduit to turn up into the building space or at all exterior walls, poles or equipment. Use raceway fittings compatible with raceway and suitable for use and location. Run concealed raceways with a minimum of bends in the shortest practical distance considering the type of building construction and obstructions. Raceways shall run parallel to or at right angles to nearby surfaces or structural members, and follow the surface contours as much as practical. Provide grounding connections for raceway, boxes, and components as indicated and instructed by manufacturer. Tighten connections and terminals, including screws and bolts, according to equipment manufacturer's published torque-lightening values for equipment connectors. Where manufacturer's torquing requirements are not indicated, tighten connectors and terminals according to tightening torques specified in UL standard 486A.
21.	Color for devices shall be coordinated with the general contractor.
22.	Receptacles shall comply with UL Standard 498, "electrical attachment plugs and receptacles," heavy-duty grade 20 AMP rated except as otherwise indicated.
23.	Ground-fault circuit interrupter (GFI) receptacles shall comply with UL Standard 943. "Ground fault circuit interrupters," with integral NEMA 5-20R duplex receptacle.
24.	Single pole and three/four-way toggle type snap switches shall be 20 AMP 120/277 V. AC., rated, quite-type A.C. switches. NRTL listed and labeled as complying with UL Standard 20 "general use snap switches," and with federal specification W-S-896.
25.	Wall plates: single and combination types shall be 302 stainless steel that mate and match with corresponding wiring devices.
26.	Conductors shall be color coded in accordance with NEC as follows: <div><div>Phase</div><div>208/120 Volts</div><div>480/277 Volts</div></div> <div><div>A</div><div>Black</div><div>Brown</div></div> <div><div>B</div><div>Red</div><div>Orange</div></div> <div><div>C</div><div>Blue</div><div>Yellow</div></div> <div><div>Neutral</div><div>White</div><div>Gray</div></div> <div><div>Ground</div><div>Green</div><div>Green</div></div>
27.	Electrical equipment shall be identified with labels of engraved plastic-laminate on each major unit of electrical equipment.
28.	All wiring for equipment shall be copper with one of the following types of insulation: THW, THHW, THWN with a rating of at least 75 DEG. C. All wiring located above the ceiling shall be plenum-rated.
29.	Final locations of all exit and emergency lights shall be verified with the building inspector prior to installation.
30.	Branch circuits shall not exceed 80% of overcurrent protection. Devices shall be relocated to another circuit if found to be in excess of 80%.

LIGHTING FIXTURE SCHEDULE																	
TAG	TYPE					VOLTAGE	FIXTURE WATTS	LAMPS			MOUNTING			# OF BALLASTS	DESCRIPTION	MANUFACTURER & MODEL	
	INCAND.	FLOUR.	LED	METAL HAL.	H.P.S.			OTHER	NUMBER	WATTS & OR TYPE		RECESSED	CEILING				PENDANT
A			X				120	77	-	7200 lumen LED	X				-	2 x 4 Troffer	Lithonia 2GTL-4-72L-FN-A19-LP835
X1			X				120	0.6	-	LED		X				EXIT SIGN	LITHONIA LQC-W-1-R-ELN
X2			X				120	1.4	-	LED				X		INTERIOR EMERGENCY LIGHTS	LITHONIA ELM2
1. CONTRACTOR SHALL COMPLY WITH INSULATION CONTACT (IC) RATING FOR RECESSED FIXTURES WHERE INSULATION IS INSTALLED DIRECTLY ABOVE. CEILING (SEE ARCHITECTURAL SHEETS).																	
2. VERIFY MOUNTING HEIGHT WITH OWNER PRIOR TO INSTALLATION																	

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DATE:
January 30, 2014
REVISIONS:

Kitchen Remodel for:

FIRST PRESBYTERIAN CHURCH

40 Church St.
Asheville, NC



LOCATION:

MANUFACT.:

MODEL:

MOUNTING:

LOCATION:

MANUFACT.:

MODEL:

MOUNTING:

PANEL:

FED FROM:

K2

TROUGH

CONN

VA

#

LOAD

Ph

N

G

C

BKR

A

B

C

BKR

Ph

N

G

C

LOAD

#

VA

1600

1

Freezer

12

12

12

1/2

20

15

12

12

12

1/2

Dishwasher EF

2

800

1600

3

12

2P

15

12

12

12

1/2

Hood Controls

4

500

1600

5

Freezer

12

12

12

1/2

20

15

12

12

12

1/2

Hood EXH-1

6

1000

1600

7

12

2P

2P

15

8

1000

1600

9

Cooking Line

12

12

12

1/2

20

15

12

12

12

1/2

Hood SUP-2

10

1000

1600

11

12

2P

2P

15

12

1000

1500

13

Mixer

12

12

12

1/2

20

Space

14

0

217

15

VF1

12

12

12

1/2

20

Space

16

0

0

17

Space

Space

18

0

0

19

Space

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21

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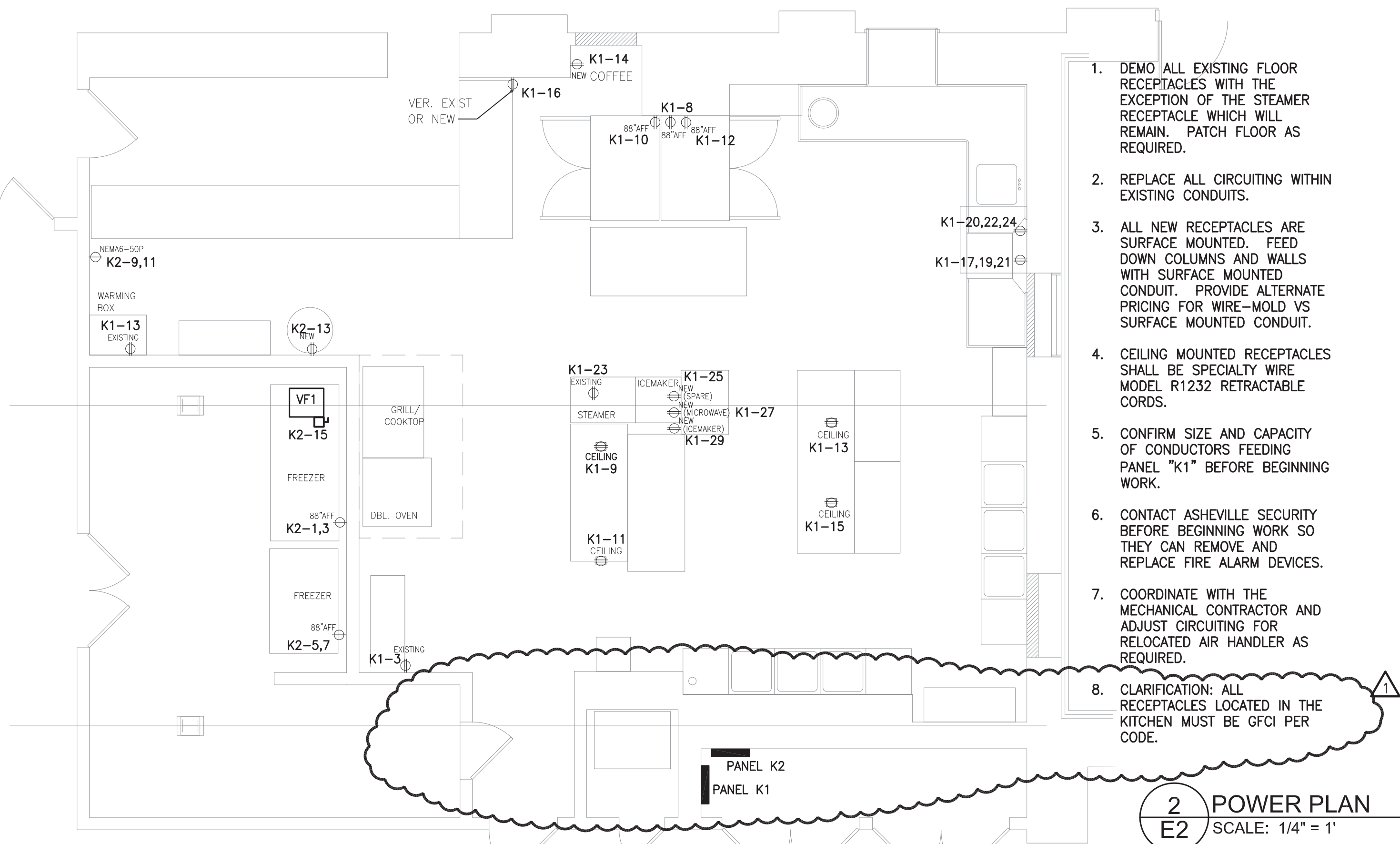
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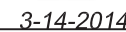
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REVISIONS:

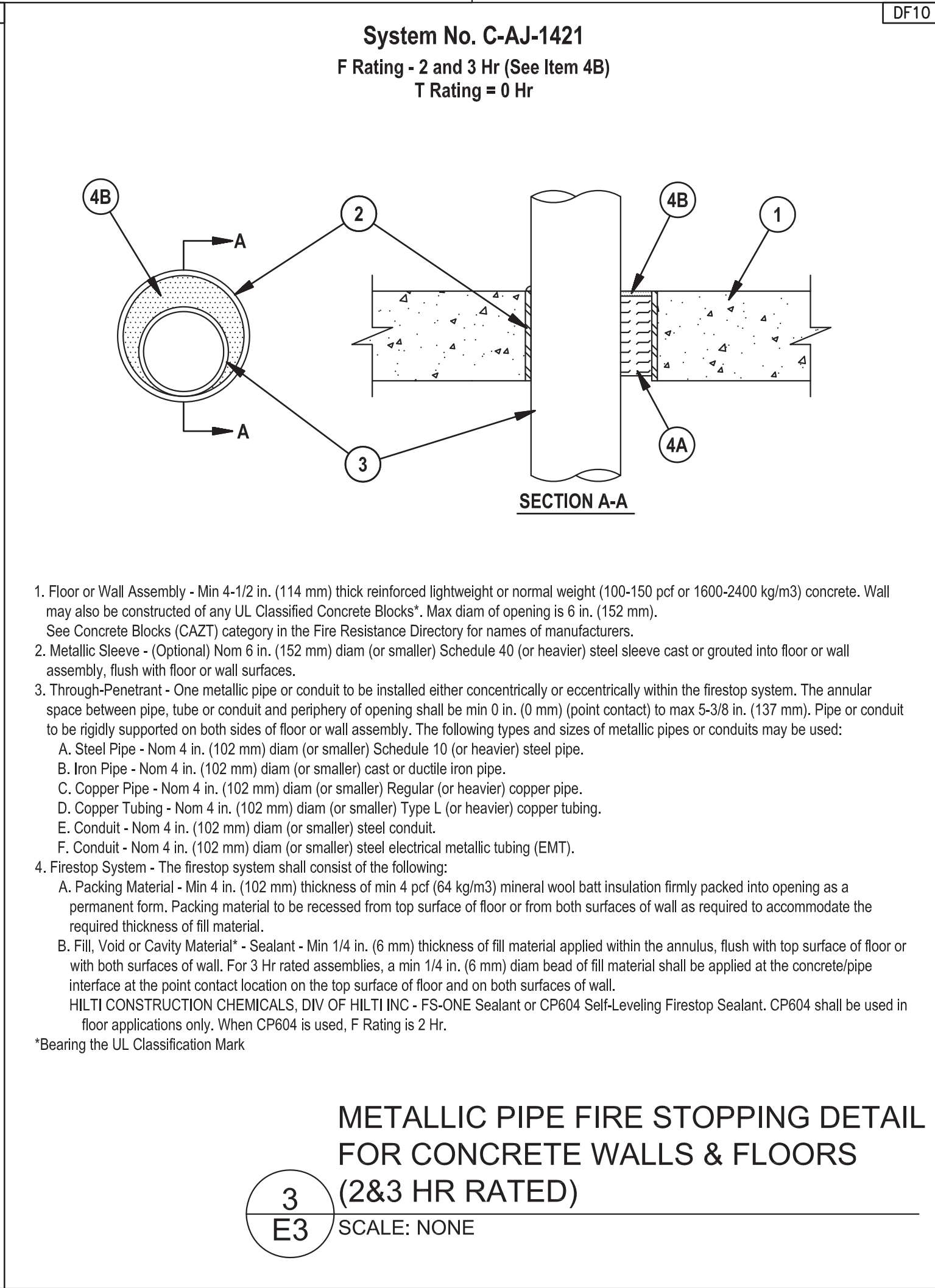
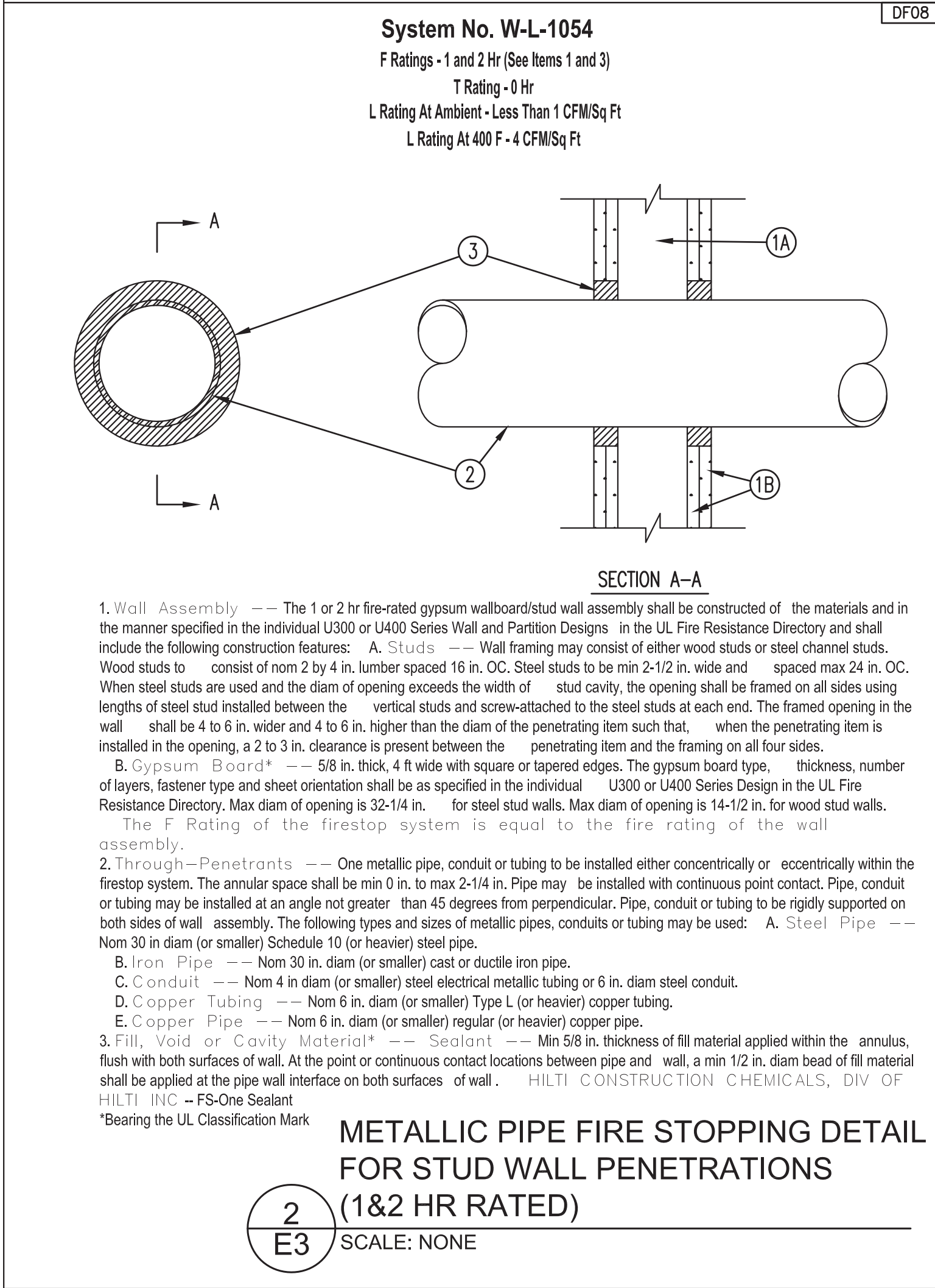
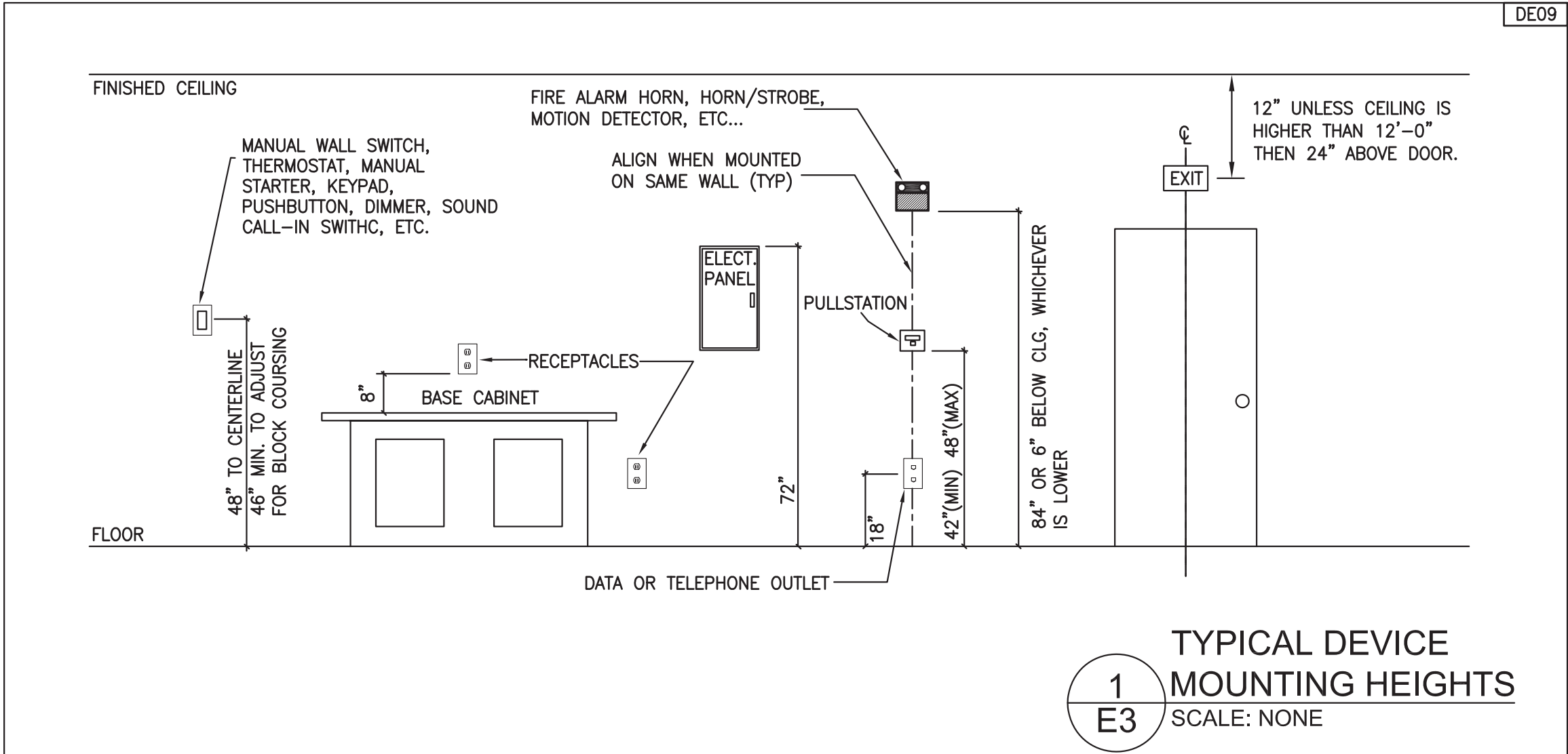
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FIRST PRESBYTERIAN CHURCH

Asheville NC

40 Church St.

E2



Tilden White & Associates, PLLC

351 Merrimon Ave.
Asheville, NC 28801
(828) 255-4327 (ph)
www.tildenwhite.com

1371

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SEAL
028953
ENGINEER
TILDEN A. WHITE

1-31-2014

DATE:
January 30, 2014

REVISIONS:

Kitchen Remodel for:

FIRST PRESBYTERIAN CHURCH

40 Church St.
Asheville, NC

E3

HOOD INFORMATION - Job#1901157

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	TOTAL EXH. CFM	EXHAUST PLENUM RISER(S)					TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG.	
						WIDTH	LENG.	DIA.	CFM	S.P.			END TO END	RDW
1		5424 ND-2-PSP-F	8' 0.00"	450 Deg.	1600	10"	15"		1600	-0.377"	1360	430 SS Where Exposed	ALONE	ALONE
2		4824 VHB-G	4' 0.00"	700 Deg.	600			12"	600	-0.066"	0	304 SS 100%	ALONE	ALONE

HOOD INFORMATION

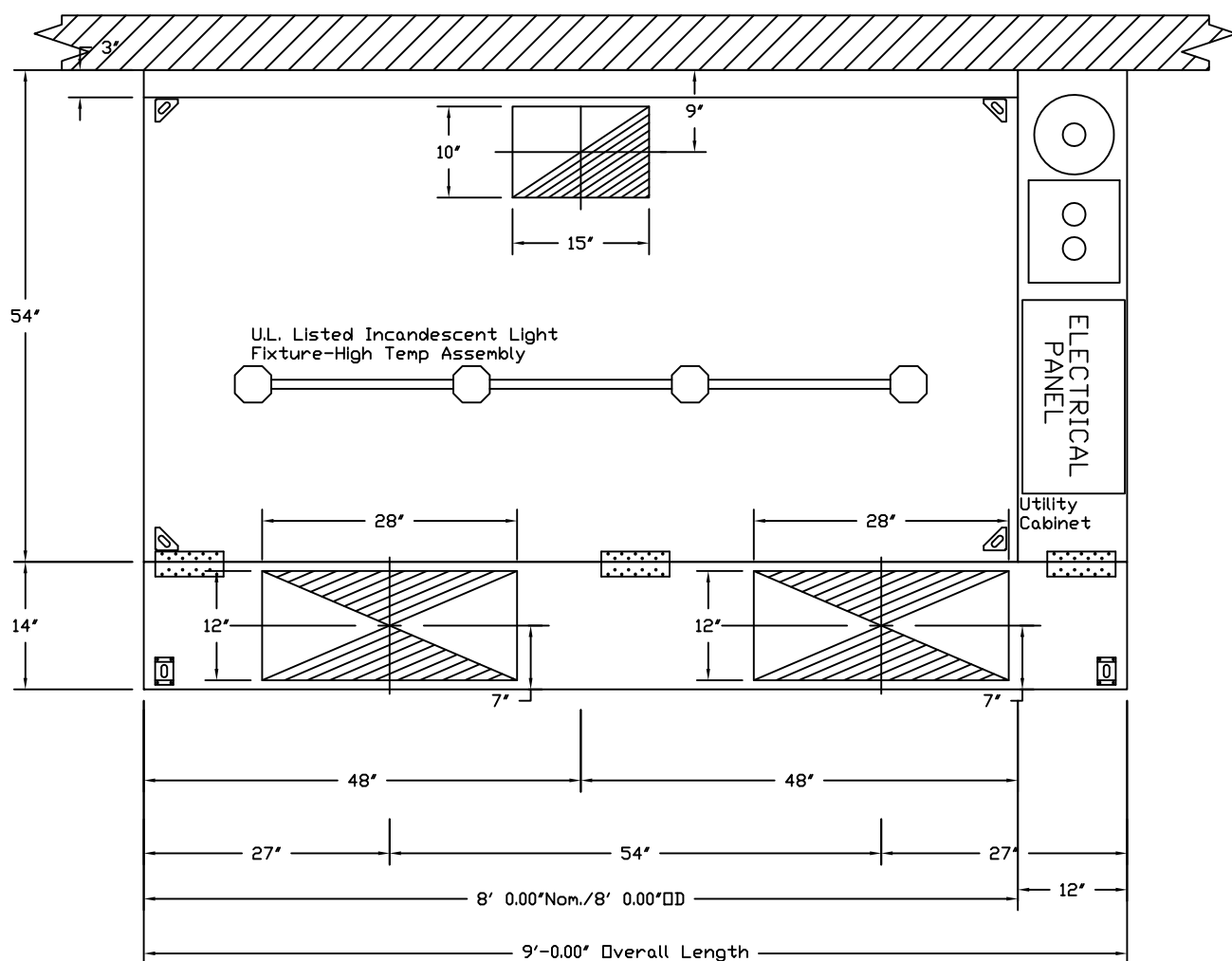
HOOD NO.	TAG	FILTER(S)			LIGHT(S)			WIRE GUARD	LOCATION	UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WGHT
		TYPE	QTY.	HEIGHT	LENGTH	QTY.	TYPE			FIRE SYSTEM TYPE	SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY		
1		SS Baffle with Handles	1	16"	16"	4	Incandescent	NO	Right	Ansul R102	3.0	SC-211110FP	1 Light 1 Fan	NO	634 LBS
2						0								NO	185 LBS

HOOD OPTIONS

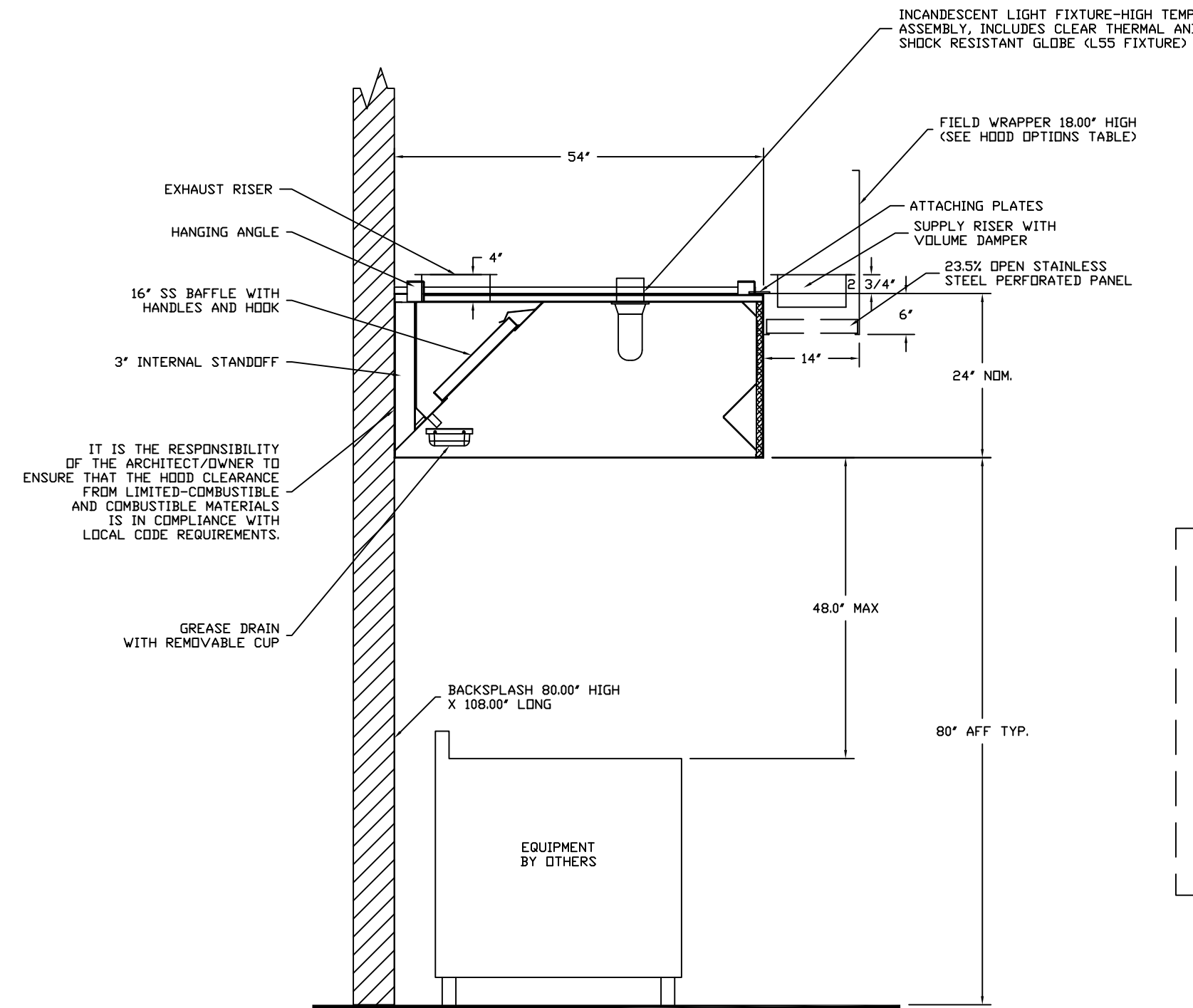
HOOD NO.	TAG	OPTION
1		FIELD WRAPPER 18.00" High Front, Left, Right BACKSPLASH 80.00" High X 108.00" Long 430 SS
2		FIELD WRAPPER 17.00" High Front, Left, Right

PERFORATED SUPPLY PLENUM(S)

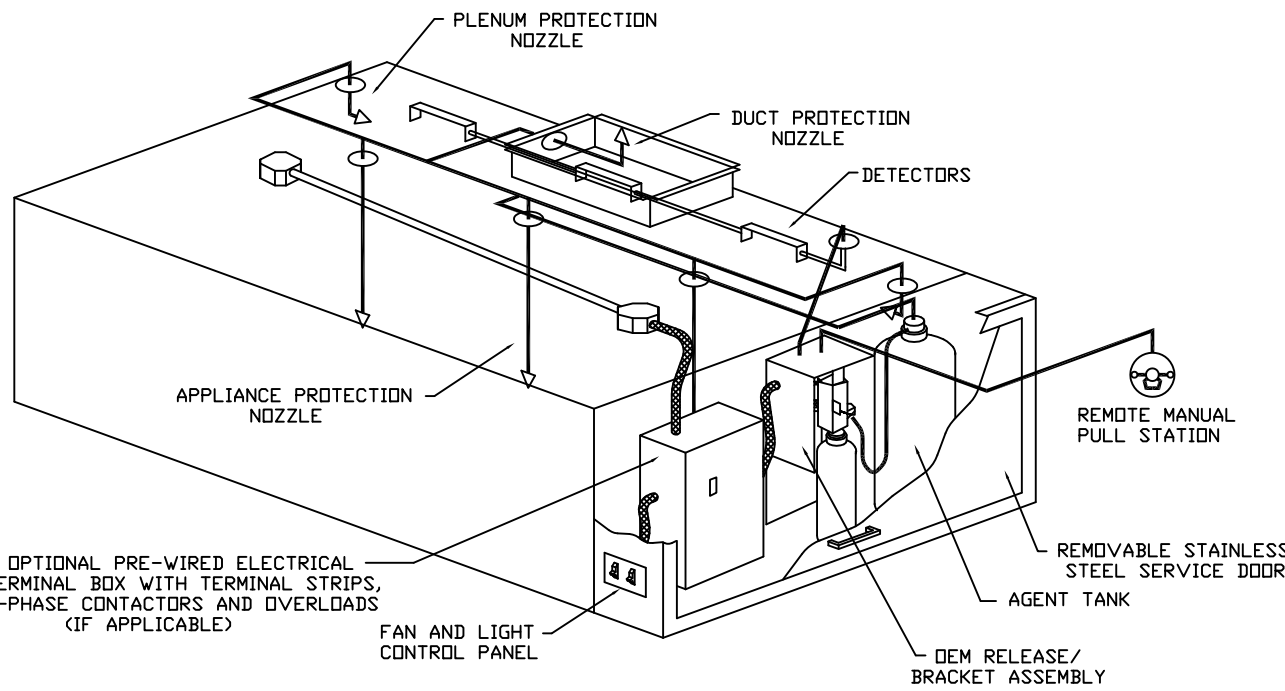
HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)			
							WIDTH	LENG.	DIA.	S.P.
1		Front	108"	14"	6"	MUA	12"	28"		680 0.151'
						MUA	12"	28"		680 0.151'



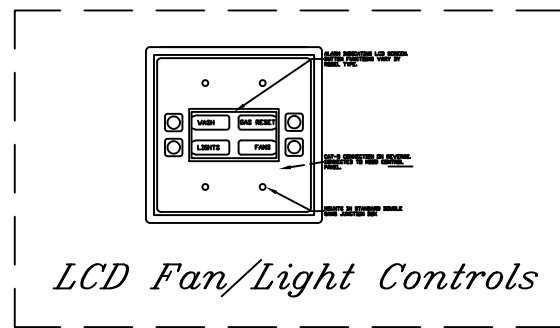
PLAN VIEW - Hood #1
8' 0.00" LONG 5424ND-2-PSP-F



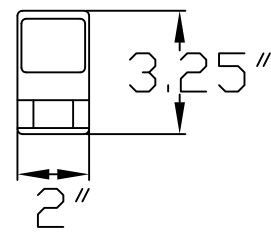
SECTION VIEW - MODEL 5424ND-2-PSP-F
HOOD - #1



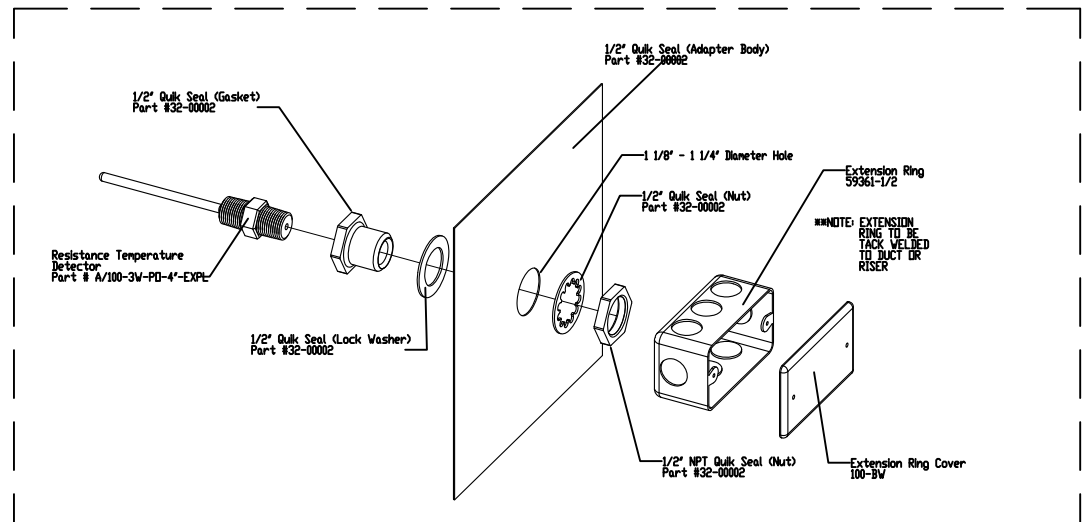
TYPICAL ANSUL R-102 SYSTEM LAYOUT



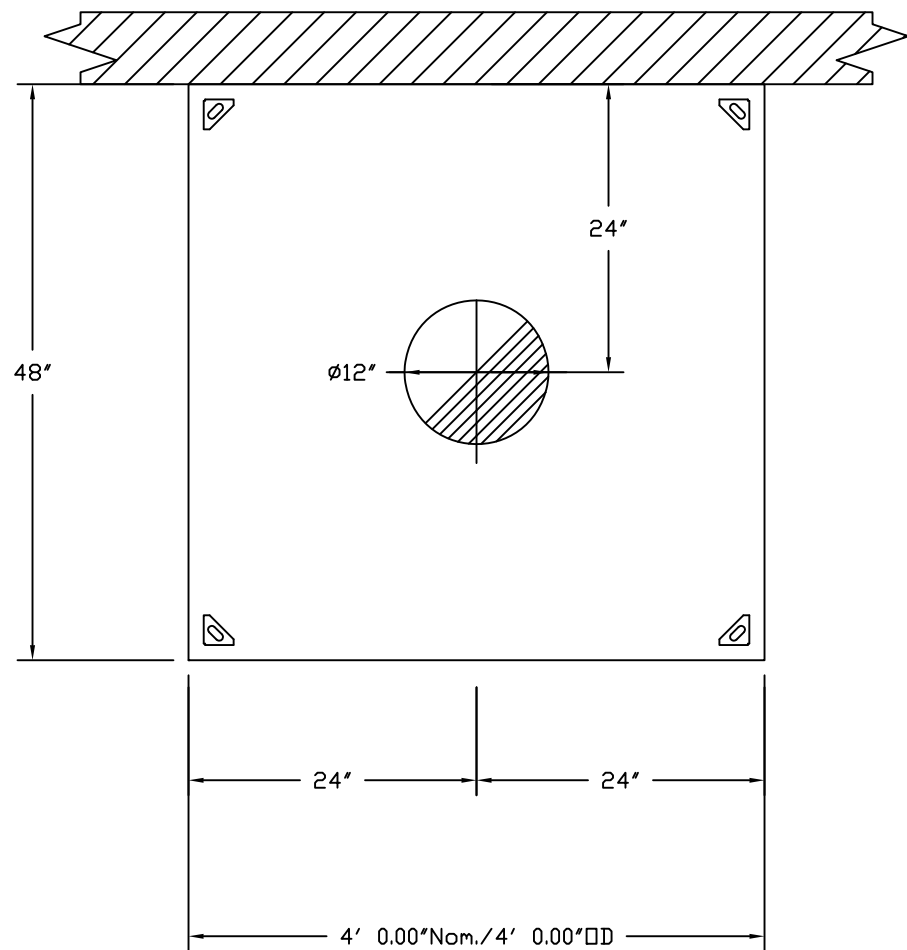
Room Override Thermostat



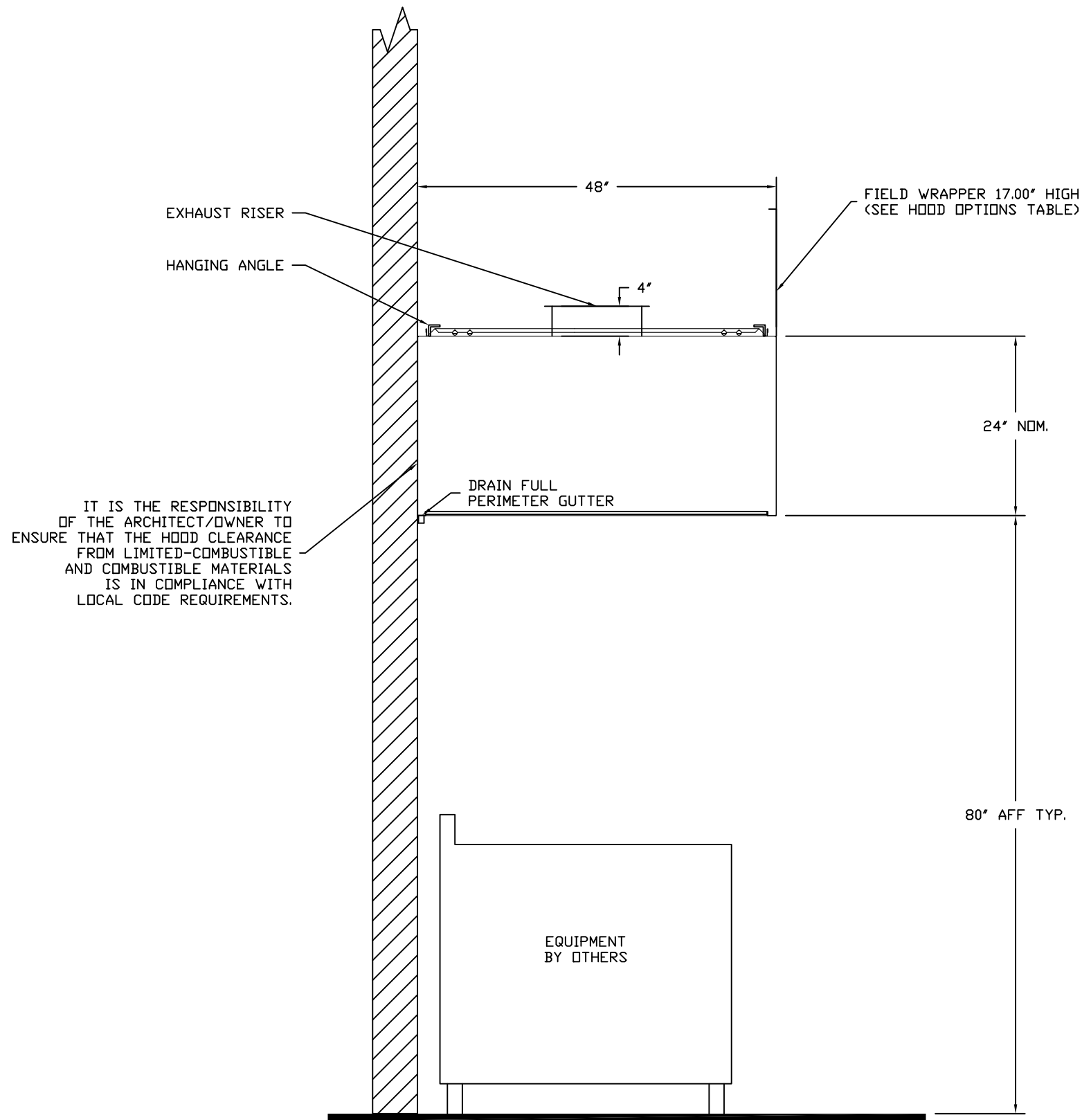
Provides room override based on temperature differential between the room and duct. Install on a wall in space but not directly under the hood or close to an appliance so the reading is accurate for space.



Duct Temperature Sensors
-installed in exhaust riser, wiring by others*
* shipped loose w/ field cut exhaust risers



PLAN VIEW - Hood #2
4' 0.00" LONG 4824VHB-G



SECTION VIEW - MODEL 4824VHB-G
HOOD - #2

REVISIONS

DESCRIPTION	DATE

Blue Ridge

607 5th St. NW, Hickory, NC 28601 PHONE: (828) 324-4413 FAX: (819) 227-5993 EMAIL: reg@captveair.com

1st Presbyterian Church
ASHEVILLE, NC

DATE: 1/31/2014
DWG.#:
1901157
DRAWN BY: MHB - 16
SCALE:
3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
1

EXHAUST FAN INFORMATION – Job#1901157

FAN UNIT NO.	TAG	FAN UNIT MODEL #	CFM	ESP.	RPM	H.P.	Ø	VOLT	FLA	WEIGHT (LBS.)	SDNES
1		NCA14FA	1600	1.000	1189	1.000	1	208	7.0	154	12.7
3		TICF122A1-CA	600	0.500	1136	0.250	1	115	4.8	192	4.1

MUA FAN INFORMATION – Job#1901157

FAN UNIT NO.	TAG	FAN UNIT MODEL #	BLOWER	HOUSING	CFM	ESP.	RPM	H.P.	Ø	VOLT	FLA	WEIGHT (LBS.)	SDNES
2		INLINE1L-G10	G10	INLINE1L	1360	0.500	819	0.500	1	208	4.0	189	7.9

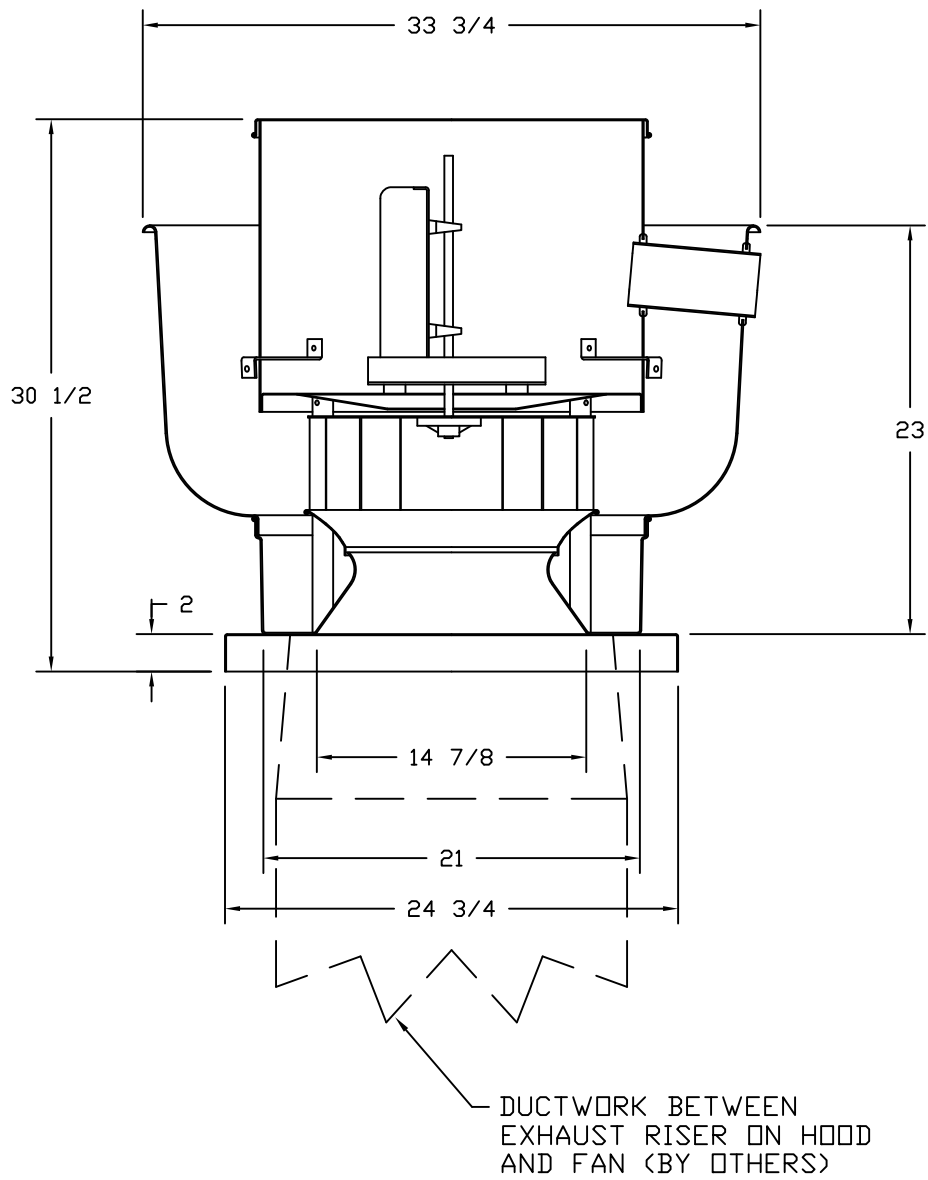
FAN OPTIONS

FAN UNIT NO.	TAG	OPTION (Qty. – Descr.)
1		1 – Grease Box
		1 – Extra Set of Belts
		1 – Wallmount 24.25’ sq. x 2’
2		1 – Extra Set of Belts
		1 – INLINE1 Indoor Hanging Option – Includes 2 HSA125 Hanging Spring Isolators per Uni-Strut
3		1 – Extra Set of Belts
		1 – 1 Hanging Spring Vibration Isolators (Set of 4), For Indoor or Outdoor use with Square Inline Fans.

FAN ACCESSORIES

FAN UNIT NO.	TAG	EXHAUST			SUPPLY		
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER
1				YES			
2					YES		

FAN #1 NCA14FA – EXHAUST FAN



FEATURES:

- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL705 AND UL762
- AMCA SOUND AND AIR CERTIFIED
- WIRING FROM MOTOR TO DISCONNECT SWITCH
- WEATHERPROOF DISCONNECT
- HIGH HEAT OPERATION 300°F (149°C)
- GREASE CLASSIFICATION TESTING

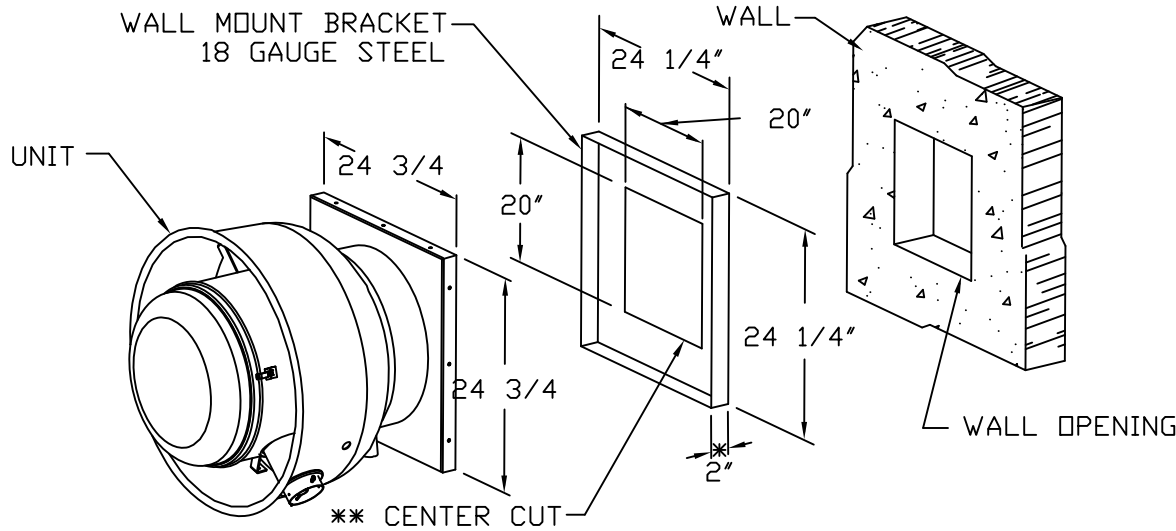
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

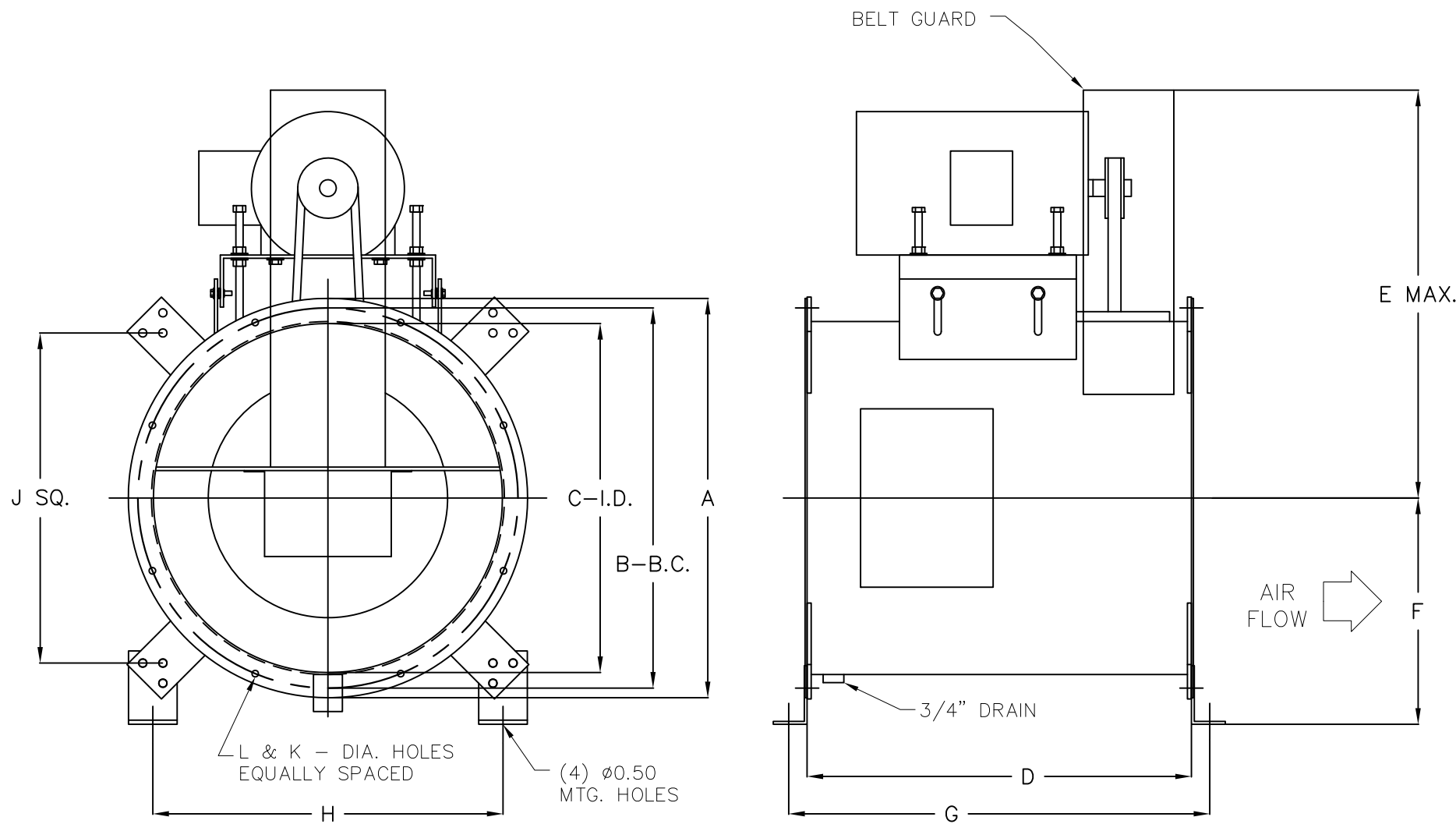
- GREASE BOX
- EXTRA SET OF BELTS
- WALLMOUNT 24.25’ SQ. X 2’

WALL MOUNT BRACKET



- WALL BRACKET FITS INTO BASE OF FAN
- SELF DRILLING SCREWS SHOULD BE USED FOR UNIT ATTACHMENT TO WALL MOUNT BRACKET
- * DIMENSION = 5’ WHEN USED WITH DAMPER
- ** CENTERED IN WALL MOUNT

TUBULAR CENTRIFUGAL INLINE FAN



TICF – TUBULAR CENTRIFUGAL INLINE FANS.

FAN MODEL	A-B.D.	B-B.C.	C-I.D.	D	E-MAX	F	G	H	J-SQ.	L	K	SHAFT	WEIGHT
TICF105	19 5/8	17 7/8	16 1/8	19 1/2	21	11 1/2	22 1/4	17 7/8	16 11/16	8	9/16	3/4	146 LBS
TICF122	21 3/4	19 7/8	18 1/4	20 1/2	22 1/2	12 3/8	23 1/4	19 1/2	18 1/4	8	9/16	3/4	161 LBS
TICF135	24 3/4	22 7/8	21 1/4	23	25 1/4	13 3/8	25 3/4	21 1/2	20 1/4	8	9/16	3/4	181 LBS
TICF150	25 11/16	23 15/16	22 3/16	24	26 1/2	13 3/4	26 3/4	22 1/4	21	8	9/16	3/4	195 LBS

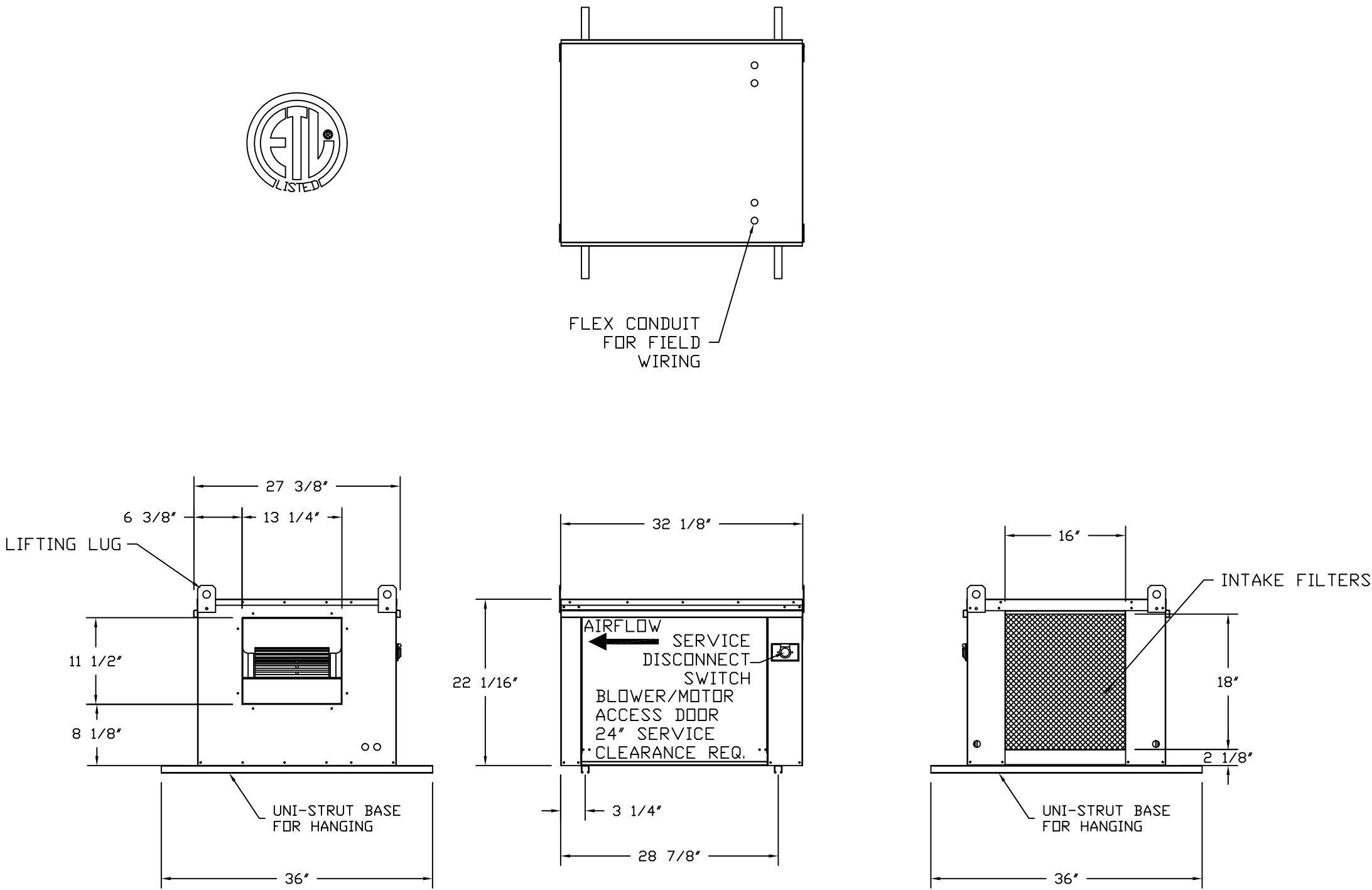
FEATURES:

- LEVEL I CONSTRUCTION – UL 705.
- HORIZONTAL AND VERTICAL MOUNTING POSITIONS.
- STRAIGHT THROUGH AIR FLOW.
- WHEELS BACKWARD INCLINED, NON-OVERLOADING.
- WHEELS STATICALLY AND DYNAMICALLY BALANCED.
- HEAVY GAUGE ALUMINUM CONSTRUCTION.
- ACCESS DOORS FOR WHEEL CLEANING.
- BELT TUBES AND GUARDS.
- EXTENDED LUBE LINES.
- 3/4” GREASE DRAIN.
- COMPANION RING INLET
- COMPANION RING OUTLET

OPTIONS:

- FLOOR SPRING ISOLATORS
- HANGING SPRING ISOLATORS
- DISCONNECT SWITCH
- MOTORIZED DAMPER

- FAN #2 INLINE1L-G10 – SUPPLY FAN
- LOW PROFILE INLINE SUPPLY UNIT W/ 10” BLOWER IN SIZE #1 HOUSING. INSULATED HOUSING.
 - SIDE DISCHARGE – AIR FLOW RIGHT -> LEFT
 - EXTRA SET OF V-BELTS. ONLY TO BE ORDERED AS FAN OPTION AT TIME FAN IS ORDERED.
 - INDOOR HANGING CRADLE FOR THE SIZE 1 UNTEMPERED INLINE UNIT. 2 HSA125 HANGING ISOLATORS PER UNI-STRUT INCLUDED.



REVISIONS

DESCRIPTION	DATE:



1st Presbyterian Church
ASHEVILLE, NC

DATE: 1/31/2014

DWG.#:
1901157

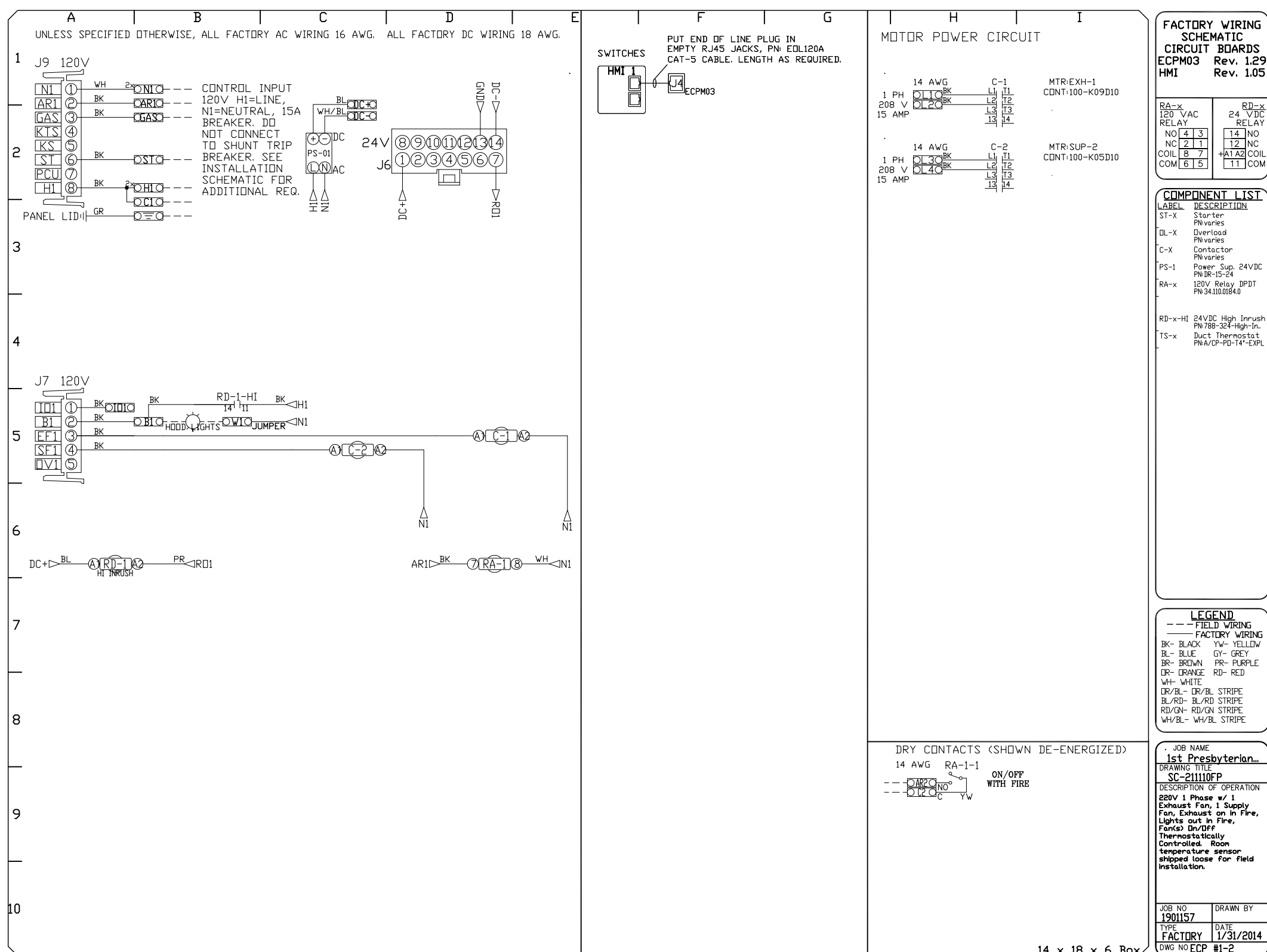
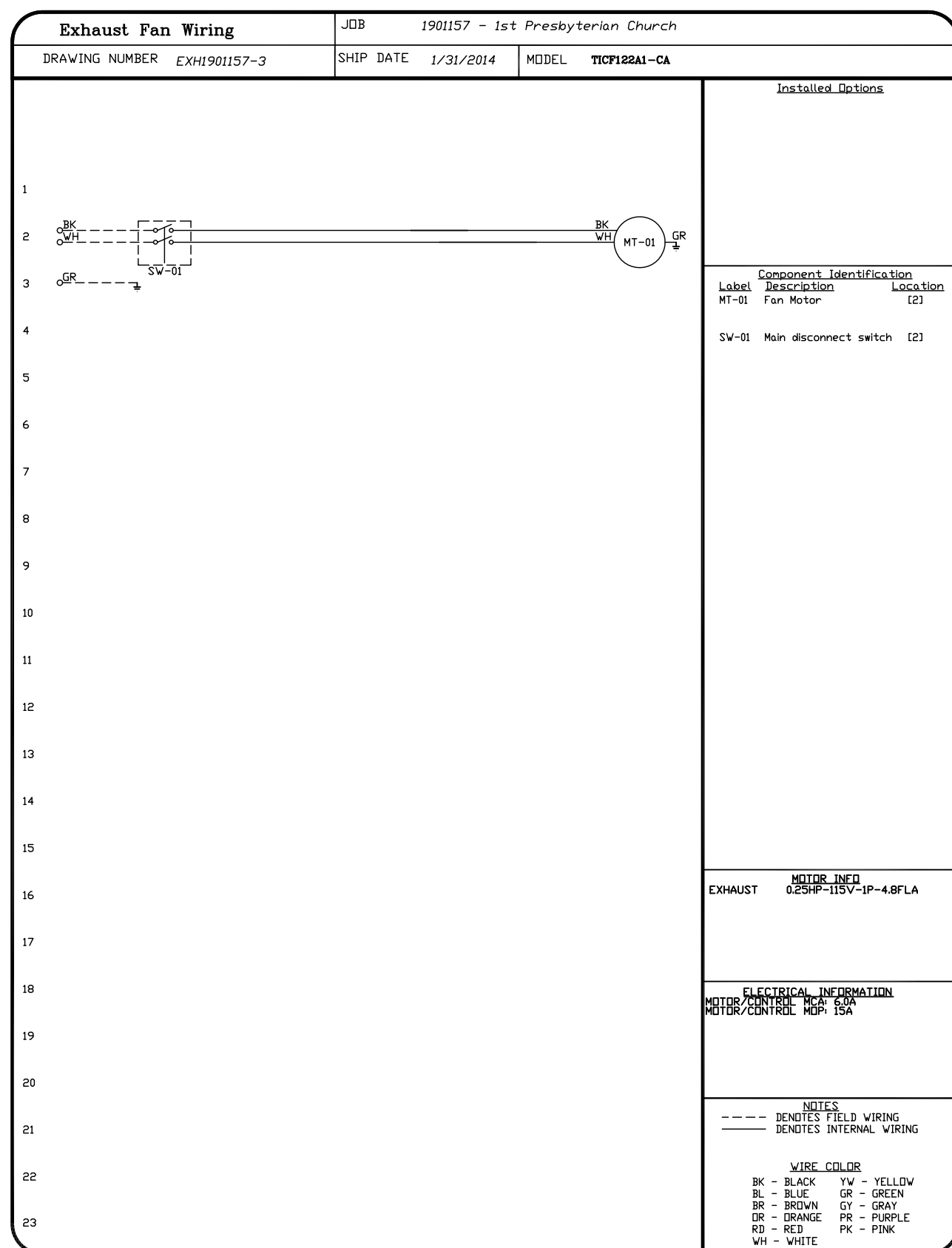
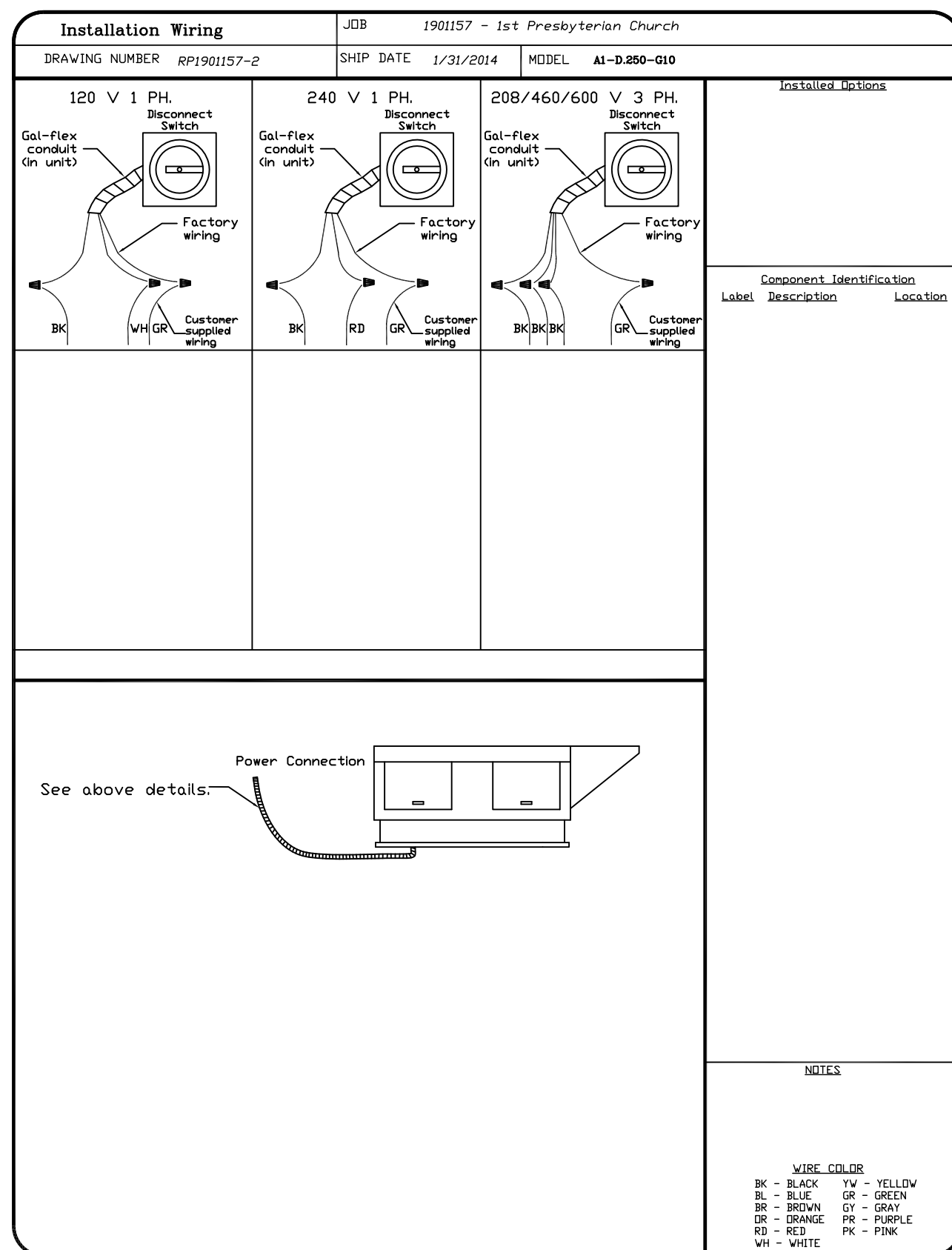
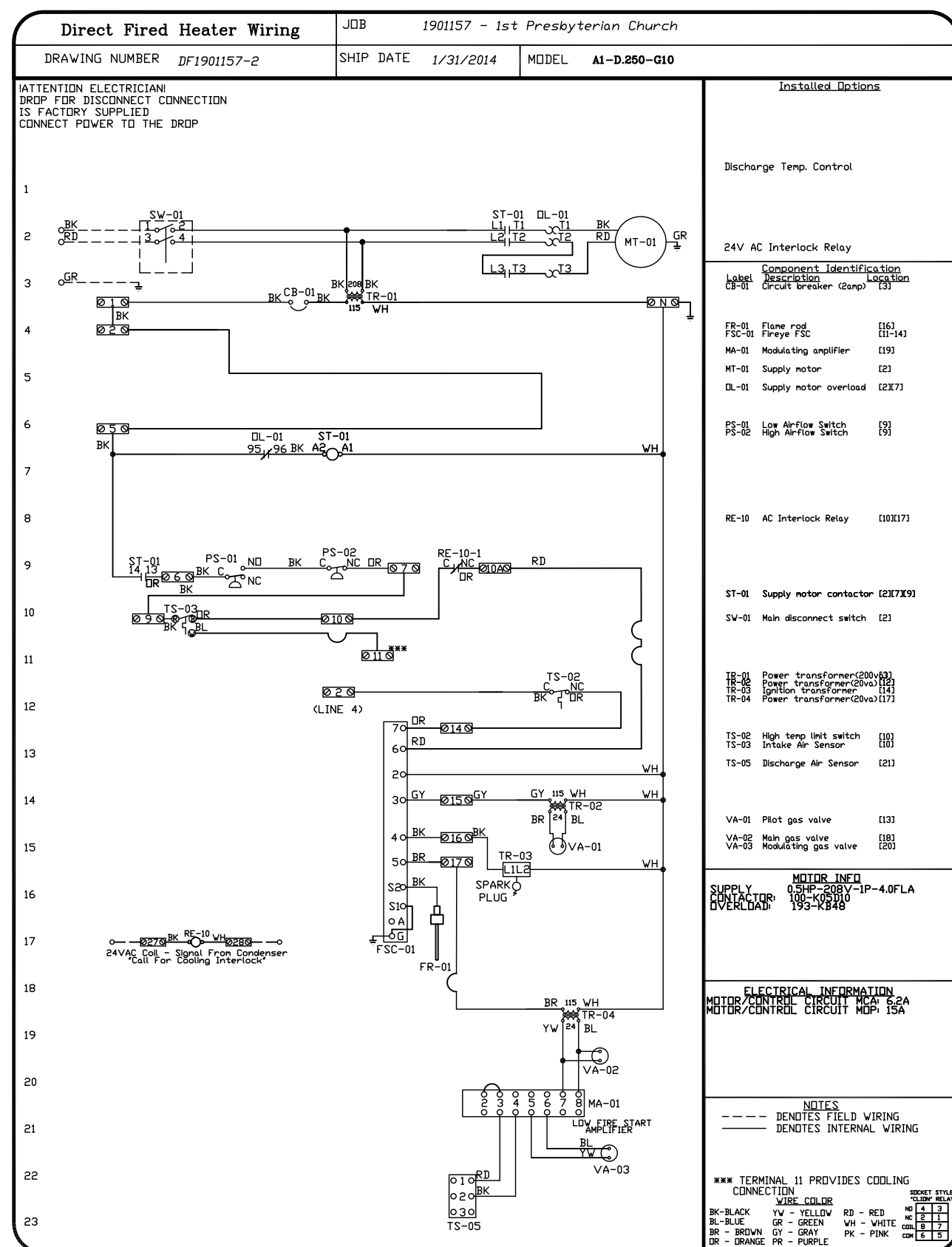
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SCALE:
3/4" = 1'-0"

MASTER DRAWING

SHEET NO.
2

NO.	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
				LOCATION	QUANTITY		TYPE	Ø	H.P.	VOLTS	FLA
1		SC-211110FP	Utility Cabinet Right	Utility Cabinet Right Hood # 1	1 Light 1 Fan	Smart Controls Thermostatic Control	Exhaust Supply	1 1	1.000 0.500	208 208	7.0 4.0



1st Presbyterian Church ASHEVILLE, NC		<div><div>CAPTIVE</div><div>Blue Ridge</div><div>607 5th St. NW, Hickory, NC, 28601 PHONE: (828) 324-4413 FAX: (919) 227-5983 EMAIL: reg1@captivetheatre.com</div></div>																							
DATE: 1/31/2014		<div>REVISIONS</div> <table><thead><tr><th>DESCRIPTION</th><th>DATE:</th></tr></thead><tbody><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></tbody></table>		DESCRIPTION	DATE:																				
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